```
File  50:CAB Abstracts 1972-2004/Jul
File  71:ELSEVIER BIOBASE 1994-2004/Aug W2
File 143: Wilson Biological and Agricultural Index
File 162:Global Health 1983-2004/Jul
File 185:Zoological Record Online(R) 1978-2004/Jul
File 285:BioBusiness(R) 1985-1998/Aug W1
File 315:ChemEng & Biotec Abs 1970-2004/Jul
File 358:Current BioTech Abs 1983-2004/Jul
Set     Items   Description
S1      28279   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
             STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
             OR FOETUS OR FAETUS)
S2     447700   TISSUE
S3     212741   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4        170   TISSUE()GRAFT? ?
S5      94871   IMPLANT? OR GRAFT?
S6     897347   MIX? OR COMBIN?
S7     122416   TRANSPLANT?
S8         73   S1 AND S3 AND S6 AND (S5 OR S7)
S9         28   S8/1991:1999
S10        45   S8/2000:2004
S11         0   S8 NOT S9:S10
S12       216   (S1 AND S3 AND (S5 OR S7)) NOT S8
S13       178   RD (unique items)
S14        67   S13/1990:1999
S15       110   S13/2000:2004
S16         1   S13 NOT S14:S15
S17        17   S2(5N)S6(5N)S3 AND (S5 OR S7)
S18        14   S17 NOT (S8 OR S12)
S19        11   RD (unique items)[too recent]
S20       138   (S1:S2(S)S3:S4(S)S6 AND (S5 OR S7)) NOT (S8 OR S12 OR S17)
S21       131   RD (unique items)
S22       120   S21/1991:2004
S23        11   S21 NOT S22
S24        11   Sort S23/ALL/PY,A
S25         0   S13/1990

16/7,K/1     (Item 1 from file: 315)
DIALOG(R)File 315:ChemEng & Biotec Abs
(c) 2004 DECHEMA. All rts. reserv.
135251  CEABA Accession No.: 15-10-003465  DOCUMENT TYPE: Journal
Title: Introduction of new genetic material into pluripotent haematopoietic
     stem   cells  of the mouse.
AUTHOR: Williams, D. A.; Lemischka, I. R.; Nathan, D. G.; Mulligan, R. C.
CORPORATE SOURCE: MIT Dep. Biol. Cambridge, MA 02139 USA
JOURNAL: Nature (London), Volume: 310,  Issue: 5977,  Page(s): 476-480
CODEN: NATUAS      ISSN: 0028-0836
PUBLICATION DATE: 9 Aug 1984  (840809)      LANGUAGE: English
ABSTRACT: An infectious retrovirus vector was used to transfer a bacterial
    gene  coding  for  resistance  to  G418  (a  neomycin  analogue)  into
     pluripotent  haematopoietic  stem  cells  present  in  explanted murine
     bone  marrow  tissue.  Subsequent  transplantation  of the cells into
    lethally  irradiated  mice  resulted  in engraftment of the animals with
    donor   haematopoietic   tissue   containing   the   bacterial   gene.   This
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approach affords an efficient and rapid means of re-introducing genetically modified tissue into intact organisms and provides a system whereby the expression and regulation of cloned genes can be followed within the context of a well characterized developmental programme.
DESCRIPTORS: English; genetic manipulation; **antibiotic** resistance; haematopoietic cell

24/6/2 (Item 2 from file: 50)
01038041 CAB Accession Number: 801362849
Investigations on purple top roll and witches' broom diseases of the potato.
Publication Year: 1978

24/6/5 (Item 5 from file: 285)
00093186
BIOCERAMICS COME OF AGE.

24/6/6 (Item 6 from file: 50)
02389272 CAB Accession Number: 912306436
Natural cross protection among strains of prunus necrotic ringspot virus.
Publication Year: 1989

24/6/7 (Item 7 from file: 50)
02211624 CAB Accession Number: 902200250
Morphologic characteristics of a transplantable tumor derived from a spontaneous malignant fibrous histiocytoma in the rat.
Publication Year: 1989

24/6/8 (Item 8 from file: 285)
00214858
ENHANCED ADHERENCE OF HUMAN ADULT ENDOTHELIAL CELLS TO PLASMA DISCHARGE MODIFIED POLYETHYLENE TEREPHTHALATE.

24/6/10 (Item 10 from file: 285)
00272356
Calcium phosphate ceramic coating on porous titanium: Effect of structure and composition on electrophoretic deposition, vacuum sintering and in vitro dissolution.

24/6/11 (Item 11 from file: 285)
00232174
MECHANICAL PROPERTIES OF BONE AFTER IMPLANTATION OF APATITE-WOLLASTONITE CONTAINING GLASS CERAMIC-FIBRIN MIXTURE.

24/7,K/1 (Item 1 from file: 50)
DIALOG(R)File 50:CAB Abstracts
(c) 2004 CAB International. All rts. reserv.
00292978 CAB Accession Number: 741426582
Proteolysis of preformed protein in wound nutrition.
Ehrlich, H. P.; Tarver, H.; Hunt, T. K.
Dep. Surgery, School of Medicine, Univ. California, 3rd and Parnassus, San Francisco, Calif. 94143, USA.
Surgery, USA vol. 76 (2): p.263-266
Publication Year: 1974 --

Language: English
Document Type: Journal article
Eighteen polyvinyl sponge discs, 1 cm diameter and 0.2 cm thick, were dried to a constant weight and heat-sterilised. Six to 10 mg of powdered bovine albumin (BSA) were deposited into 6 of the discs. A **mixture** of 100 parts BSA to 1 part Chlorella protein, with its amino acids uniformly labelled with 14C, was similarly deposited into another 6 discs. The last 6 discs were left empty. Neither of the proteins contained hydroxyproline. One of each type of disc was **implanted** under the abdominal skin of each of 6 adult male Sprague-Dawley rats. After 7 days the discs were removed and dried. **Collagen** was extracted with 5% trichloroacetic acid. After centrifuging, the supernatant fluids were counted and analysed for total protein. The supernatant fluids and the precipitates were acid hydrolysed and the hydroxyproline contents of the hydrolysates were estimated. There was no significant difference between the wet and dry weights of the removed discs plus **tissue** within, or between the total **collagen** contents of the 3 types of discs. When the discs were removed 10% of the label originally in the Chlorella protein remained in the disc in which it was **implanted** . In the same rats less than 0.1% of the total radioactivity **implanted** was found in the disc originally containing BSA alone, and less than 0.5% in the discs originally empty. This suggests that amino acids freed by proteolysis are reused locally within the wound. Of the total label found in the discs 1% was in the hydroxyproline fraction and about 12 times as much in the whole **collagen** fraction. These values reflect the amounts left in **collagen** after a sequence of steps including synthesis, lysis and resynthesis occurred during the 7 days of rapid **collagen** turnover. There was no evidence that **collagen** synthesis was enhanced or inhibited by the addition of protein to the discs. In a further experiment 2 discs containing BSA, conjugated with a fluorescent label, rhodamine RB200, were **implanted** into 2 rats. After 2 days the discs were removed. Fluorescent microscopic examination revealed the label in the cytoplasm of phagocytic cells. This suggests that the nutritional pathway from prepared protein to **collagen** involves an intermediate intracellular phase.

24/7,K/3 (Item 3 from file: 50)
DIALOG(R)File 50:CAB Abstracts

01476027 CAB Accession Number: 842244163
Histopathological examination of two cranial cruciate ligament reconstructions.
Bacon, J. P.; Pichler, M. E.; Lynd, F. T.; Evans, J. A.
J.A. Evans, MD, Nix Professional Bldg, 414 Navarro, Suite 1219, San Antonio, Texas 78205, USA.
Journal of the American Animal Hospital Association vol. 20 (1): p.65-68
Publication Year: 1984
ISSN: 0587-2871 --.
Language: English
Document Type: Journal article
Various methods of surgical reconstruction for a ruptured cranial cruciate ligament have been described since the Hey Groves procedure in 1920. Primary repair and secondary reconstruction procedures for anterior cruciate insufficiency have met with only minimal to moderate success. Experimental procedures, both in animal models and human medicine, have

indicated difficulty in maintaining viability of the intra-articular ligamentous **tissue** substitute. Utilizing living **tissue** of the patellar ligament or fascia lata has improved viability of the reconstruction. To date, the prosthetic replacements have almost always failed. The normal functioning cranial cruciate ligament in both man and dog is composed mainly of bundles of **collagen** fibres arranged longitudinally along the line of natural ligament tension. The viability of this structure depends on nourishment derived from an endoligamentous vascular system integrated with the paraligamentous membrane and the vessels of the synovial membrane. The vascular supply in the cranial cruciate ligament must be intact to prevent rapid **tissue** atrophy that would follow rupture of the cranial cruciate ligament. Cranial cruciate ligament reconstruction utilizing the fascia lata in two surgical modifications of the MacIntosh procedure was performed in 10 dogs. Two equal groups of dogs were randomly selected and underwent either an extra-articular or a **combination** extra- and intra-articular reconstruction. Histological analyses of the ligament reconstructions were made after mechanical stress-testing of ligamentous strengths. The confirmation of neovascularization of these reconstructions within and outside the stifle joints helped to substantiate further use of this type of **graft** when using the fascia lata for reconstruction and reinforcement procedures in clinical situations. In both reconstructions maintenance of longitudinal alignment of the fibrillar pattern also substantiated the use of these reconstructions. 19 ref.

24/7,K/4 (Item 4 from file: 50)
DIALOG(R)File 50:CAB Abstracts

01626121 CAB Accession Number: 850499809

Comparative analysis of casein synthesis during mammary cell differentiation in collagen and mammary gland development in vivo.

Durban, E. M.; Medina, D.; Butel, J. S.
Dep. of Virology & Epidemiology, Baylor Coll. of Med., Houston, Texas, USA.

Developmental Biology vol. 109 (2): p.288-298
Publication Year: 1985
ISSN: 0012-1606 --
Language: English
Document Type: Journal article

Mouse mammary gland epithelial cells grown in a matrix of rat-tail **collagen** formed morphological structures resembling the branching tubules of a normal mammary gland. When dissociated mammary cells from virgin mice were grown for 4 wk in the **collagen** matrix and induced for 2 wk with a **mixture** of corticosterone, prolactin and aldosterone, the concn. of intracellular casein approached that found in mammary cells of mice 1 wk into lactation. However, intracellular casein from **tissue** culture was mainly the beta -casein polypeptide with mol. wt. 27 000-30 000; a 42 000 polypeptide related to beta -casein was also found. Mammary cell numbers increased 4- to 6-fold during the 1st wk in **collagen** , and then appeared to plateau. Casein synthesis was not correlated with time in culture (1-7 wk) or exposure to inducing hormones (1-4 wk) but the interval between induction and detection of casein polypeptides decreased as length of culture before induction increased. Cells grown in **collagen** for 6-8 wk produced normal ductal outgrowths with end buds when **transplanted** into cleared mammary fat pads, but branching and occupation of the fat pad were less than when cells cultured for 2-4 wk were used.

29 ref.

24/7,K/9 (Item 9 from file: 285)
DIALOG(R)File 285:BioBusiness(R)

00209690
GENERATION OF IL1-LIKE ACTIVITY IN RESPONSE TO BIOMEDICAL POLYMER IMPLANTS **: A COMPARISON OF IN VITRO AND IN VIVO MODELS.**
Miller K M; Rose-Caprara V; Anderson J M
INST. PATHOL., CASE WESTERN RESERVE UNIV., 2085 ADELBERT RD., CLEVELAND, OHIO 44106.
Journal of Biomedical Materials Research Vol.23, No.9, p.1007-1026, 1989.
ABSTRACT: Of the many factors determining host biocompatibility responses to **implanted** biomedical polymers, the cellular interactions at the **tissue** /material interface have been recognized to be some of the most important. The present study has **combined** results both from an in vitro cell culture system and from an in vivo animal model to examine this host response. In vitro results suggest that a variety of polymer materials can differentially activate human monocytes to produce a proteins(s) having different biological activities. The polymers tested induce the production of the regulatory inflammatory protein interleukin 1 as well as a factor that enhances fibroblast proliferation and **collagen** synthesis. The observed activities of these factors appear to be related but not identical, and are dependent upon the specific polymer. Evaluation of exudate and **tissue** responses to these same polymer materials in an in vivo model are also presented. Both in vitro and in vivo results support the hypothesis that monocyte/macrophage activation with subsequent synthesis of regulatory factors such as interleukin 1 plays a significant role in determining the host response to biomedical polymer **implants** .
...DESCRIPTORS: **IMPLANT** MATERIAL

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File 135:NewsRx Weekly Reports 1995-2004/Aug W2
File 369:New Scientist 1994-2004/Aug W2
File  20:Dialog Global Reporter 1997-2004/Aug 17
File 129:PHIND(Archival) 1980-2004/Aug W2
File 481:DELPHES Eur Bus 95-2004/Jul W4
File 624:McGraw-Hill Publications 1985-2004/Aug 16
File 635:Business Dateline(R) 1985-2004/Aug 14
Set     Items   Description
S1      22626   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
             STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
             OR FOETUS OR FAETUS)
S2      99671   TISSUE
S3      82220   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4        243   TISSUE()GRAFT? ?
S5     138956   IMPLANT? OR GRAFT?
S6    2587530   MIX? OR COMBIN?
S7      79235   TRANSPLANT?
S8         82   S1:S2(S)S3:S4(S)S6(S)(S5 OR S7)
S9         82   S8/1991:2004
S10         0   S8 NOT S9
S11       646   S1:S2(S)S3:S4(S)(S5 OR S7) NOT S8
S12       627   S11/1991:2004
S13        19   S11 NOT S12
S14        19   RD (unique items)
S15        19   Sort S14/ALL/PD,A
S16        61   EUGENE()BELL
S17        58   RD (unique items)
S18        12   S1 AND S17
S19        50   S17/1991:2004
S20         8   S17 NOT S19
S21         1   S18 AND S20
S22         7   S20 NOT S21

 15/8/5      (Item 5 from file: 635)
DIALOG(R)File 635:(c) 2004 ProQuest Info&Learning. All rts. reserv.
0011997  86-02677
Collagen Pioneers New Sales Strategies
PUBL DATE: 860224
WORD COUNT: 1,231
DATELINE: Palo Alto, CA, US
COMPANY NAMES: Collagen Corp, Palo Alto, CA, US, DUNS:07-716-9803, SIC:2831
                , Ticker:CGEN
CLASSIFICATION CODES: 8641 (Pharmaceuticals industry); 7300 (Sales &
    selling)
DESCRIPTORS: Biotechnology; Pharmaceutical industry; Product lines; Sales
    presentations; Salespeople; Product management
NAMED PERSONS: Palefsky, Howard D.
SPECIAL FEATURE: Photo

 15/8/6      (Item 6 from file: 129)
DIALOG(R)File 129:(c) 2004 PJB Publications, Ltd. All rts. reserv.
00062504
Genzyme's aims in biotech remodelling, June 09, 1986 (19860609)
  WORD COUNT: 1027
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15/9/1 (Item 1 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00013086
German co develops antibiotic bone implant
Clinica 58/59 p15, January 21, 1983 (19830121)
WORD COUNT: 47
Mundipharma GmbH (W Germany) has developed a tri-calcium phosphate ceramic-based **bone implant material** which is impregnated with a broad spectrum **antibiotic** or other antimicrobial agent and also has a tissue-compatible **biodegradable** coating. The implants can be used in osteomyelitis cavities or in open fractures as osteomyelitis prophylaxis.

15/9/2 (Item 2 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00017890
Intermedics' vascular prosthesis subsidiary
Clinica 70 p7, June 24, 1983 (19830624)
WORD COUNT: 118
Intermedics Inc has formed a subsidiary called Intervascular Inc to develop textile woven **tissue vascular** prostheses, utilizing technology from a UK research group. The UK group, called TRL Ltd, was a privately-owned venture associated with Prof David Taylor of London's Royal College of Surgeons. Intermedics had contributed to TRL's research funds and has now acquired its assets and technology, for an undisclosed sum. Intervascular's president, Dr George Goicoechea, expects to receive US FDA 510 (k) marketing approval for a TRL-originated product later this year. Intermedics president, Russell Chambers, puts the world vascular prosthesis market at a rapidly growing US dlr 80 million plus and says he sees "enormous synergism" between Intravascular's tissue grafts and Intermedics' own biomedical materials.

15/9/4 (Item 4 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00052525
Cordis Omniflow launched in Europe
Clinica 173 p16, November 22, 1985 (19851122)
WORD COUNT: 162
Cordis Corporation, the US pacemaker manufacturer, recently announced the launch of its Omniflow Mark I **vascular graft** onto the European market. Clinica notes that the Omniflow Mark I, derived from **bovine connective tissue** and reinforced with an integral dacron mesh, has been under development at Cordis Bio-Synthetics Corporation, an Australia-based affiliate, for the past six years. According to Cordis, the graft, which is intended for use in peripheral vascular reconstruction, 'features both the biocompatibility of tissue grafts and the flexibility of synthetic grafts (and) permits the surgeon to more closely match the graft's diameter and length to the specific requirements of each patient'.
The Omniflow Mark I has already undergone 17 months of clinical trials in Europe, during which long-term monitoring of the patients 'demonstrated the benefits of biosynthetic grafts in certain peripheral vascular bypass procedures', says Cordis. Clinica notes that an investigational device exemption approval to commence clinical trials on the graft in the US is

currently pending at the FDA.

15/9/7 (Item 7 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00067641
Bio-Vascular issues 500,000 units
Clinica 214 p2, September 12, 1986 (19860912)
WORD COUNT: 479

Bio-Vascular Inc, a medical devices company based in the 'Medical Alley' region of Minnesota, has announced the issue of 500,000 units, each unit consisting of two shares of common stock and one three-year redeemable warrant. The warrant entitles the holder to purchase one share of common stock at any time after the warrants become separately transferable and until a date in 1989, not as yet set. The issue is being underwritten by Rooney Pace Inc.

Bio-Vascular markets **tissue** and biosynthetic-based medical devices and **grafts** most of which are used in open-heart surgery. The products, which the company has under licence or distribution agreement from others, include: Biocor/Genetic tissue heart valves; Peri-Guard tissue heart shield implants that use proprietary anti-rejection and sterilisation techniques; Bioflow large-diameter tissue grafts also utilising the company's anti-rejection technology; Cardio-Cool silicone-based, mouldable cold packs, which are used to cool and position the heart during surgery; and Flo-Rester silicone-based occluders for the interruption of flow during surgery. Products are sold to distributors in the US and Europe.

The net proceeds of the issue are expected to be allocated as follows: approximately US dlrs 500,000 for product development and improvements as well as regulatory approvals for the Biocor/Genetic heart valve and the Bioflow large-diameter graft as a replacement graft; about US dlrs 500,000 for product development and improvements as well as regulatory approvals for the Bioflow small-diameter graft for use in coronary artery bypass surgery; approximately US dlrs 365,000 for the repayment of debt, to include US dlrs 59,700 due to affiliates; US dlrs 100,000 for accounts payable due to Genetic Laboratories Inc; and the balance for working capital.

Bio-Vascular states that to compete effectively in the cardiovascular surgery field the company has developed a business strategy that focuses on products for the cardiovascular surgeon, marketing through experienced distributors and representatives, the marketing of products already developed while continuing to develop additional new products, and through concentrating on the company's proprietary anti-rejection technology.

The Bioflow small-diameter vascular graft was acquired by Bio-Vascular from Genetic Laboratories Inc. Bioflow, which is manufactured from animal tissue, is undergoing further research and development by the company. Successful development of this graft will allow **implantation** during coronary bypass surgery as well as in other instances of vascular disease or trauma, according to the prospectus, The company is currently relying on the research and development expertise of its chairman and two directors until Bio-Vascular has developed an in-house capability. Since forming, Bio-Vascular has not spent any money on research and development.

As of June 1st, 1986, the company had 12 full-time employees consisting of three in sales and marketing, five in management, regulatory and personnel, one in quality assurance and three tissue processing personnel. For the seven months ended May 31st, 1986, Bio-Vascular posted net sales of US dlrs 801,630 with profit of US dlrs 12,314. The company was formed on July 29th, 1985.

15/7/11 (Item 11 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter

25000026 (THIS IS THE FULLTEXT)
Foetal tissue used in cancer treatment
STATESMAN (INDIA)
September 18, 1988

Statesman News Service KOLKATA, Sept. 17. Dr Niranjan Bhattacharya and his team at the Bijoygarh State Hospital have used foetal tissue and organs to replace diseased cancerous cells successfully in patients with advanced cancer.

Working on several patients suffering from advanced cancer, Dr Bhattacharya and his team **transplanted tissue** from **foetuses** aborted at the hospital. The **foetal tissue graft** was placed in a surgically prepared vascular fold of the skin. A month later, the transplanted tissue was removed by an incision and processed for study. The study revealed that there was neither any pain, nor side-effects from the operation. No discharge was seen at the incision site and the scar was found to have healed normally. There was no signs of any tissue rejection, Dr Bhattacharya said.

Normally tissue or organ transplant backfires due to rejection of the graft by the hosts cells. However, Dr Bhattacharya and his team found that when **transplanted** sub-cutaneously (below the skin), **foetal tissue** was not rejected by the hosts skin. Besides, cellular regeneration is also very easy, since **foetal tissue** is a rich source of telomerase reverse transcriptase. This is because the oxygen-carrying capacity of **foetal cells** is 60-80 per cent higher than that of ordinary cells, since foetal growth is the highest, Dr Bhattacharya said.

Thus, **foetal tissue** has distinct advantages over adult tissue for transplant purposes in all cases, Dr Bhattacharya said. The Bijoygarh State Hospital gets patients suffering from stage IV or advanced cancer, which necessitates operation and grafting of tissue.

15/7/12 (Item 12 from file: 635)
DIALOG(R)File 635:Business Dateline(R)

0074019 88-32272
Collagen Announces U.S. Introduction of Alveoform Biograft
McKinley, Jim; Stickles, Les
Business Wire (San Francisco, CA, US) s1 p1
PUBL DATE: 881031
WORD COUNT: 453
DATELINE: Palo Alto, CA, US
TEXT:

Collagen Corp. (NASDAQ:CGEN) Monday received final U.S. Food and Drug Adminstration approval for its application to market Alveoform Biograft, an **implant** used to augment jawbones which can no longer properly support dentures.

The product, which is currently marketed in Canada, will be immediately introduced to oral and maxillofacial surgeons by Collagen Biomedical, Collagen's commercial division.

"After treatment with Alveoform Biograft, patient satisfaction was

dramatically improved in denture comfort and fit, ability to chew, speech and appearance," said Donald Mehlisch, M.D., D.D.S., medical director of Biomedical Research Group in Austin, Texas, and a principal investigator for clinical studies of Alveoform Biograft.

"Investigators were very satisfied with the handling characteristics," Mehlisch said. "The ease and speed of the procedure are significantly improved, with less patient discomfort, compared with current materials."

"Alveoform Biograft is a significant new product, and an excellent example of how we are applying our biomaterial and extra-cellular matrix technology to develop products for well-defined medical market needs," said Howard Palefsky, president and chief executive officer of Collagen Corp.

"Approximately 25 million Americans suffer from loss of teeth and most of them wear dentures," said Palefsky. "Once teeth are lost, jawbone atrophy begins and dentures become decreasingly effective. This can result in malnutrition, gastrointestinal disorders and depression."

Palefsky said approximately 25,000 alveolar ridge augmentation procedures are performed annually in the United States using the mineral **hydroxylapatite** (HA) in particle form. Alveoform Biograft is a pre-formed matrix of HA and purified **collagen**.

The **collagen** component is designed to solve problems associated with particulate HA, including the difficulty of manipulating the material for proper ridge shape during implantation and the need for additional appliances (fixed splints which prevent migration of the particles).

Alveoform Biograft is pre-formed for easy insertion and becomes pliable once **implanted** , thus allowing easy manipulation to achieve optimum ridge shape. The **collagen** matrix also provides a scaffolding for ingrowth of the patient's own connective **tissue** .

Collagen Biomedical recently acquired a company which manufactures titanium dental implants and markets them to oral and maxillofacial surgeons. With the introduction of Alveoform Biograft, Palefsky said Collagen Biomedical's dental division can now offer oral surgeons a flexible product line backed by strong biomedical research.

"Collagen is building a market franchise in oral surgery just as we did in plastic surgery and dermatology with our line of injectable collagen products," said Palefsky.

"We are applying our technology to the development of new, innovative products which we are backing with a responsive, service-oriented marketing approach. Future products for this market may include cell growth factor technology now under development in our wound and bone repair programs."

Collagen Corp. is a biomedical company applying the science of cell biology to treat human tissue damaged by aging, disease or trauma.

15/7/13 (Item 13 from file: 624)

DIALOG(R)File 624:McGraw-Hill Publications

0099537

Growth factors can heal wounds, bones--if delivered appropriately

Biotechnology Newswatch November 21, 1988; Pg 5; Vol. 8, No. 22
Journal Code: BIO ISSN: 0275-3687
Dateline: NEW HAVEN, CONN.
Word Count: 482

TEXT:

Proof that **growth factors** can speed healing of wounds and bones in people is what a lot of large pharmaceutical companies have been waiting for--and

now confront--says Gregory Schultz, associate professor of biochemistry, University of Louisville. Delivery systems will be crucial to commercializing these large, unstable proteins, secreted by cells and capable of inducing cell proliferation, observes Schultz, moderator of a conference on "Growth Factors for Wound Healing," sponsored by Technology Management Group (TMG), late last month, here.

While most researchers now use conventional carriers, such as gels and creams, to apply GFs to surface wounds, others make **matrices** of proteins ordinarily found at wound sites--such as **collagen** and fibronectin--and fill these with GF . Some scientists envelop factors to be injected in liposomes, in an attempt to prolong their release, and obviate repeat applications.

Any GF's potency appears influenced by a phenomenon demonstrated only in the body--the ability to attract other cells, such as macrophages, that help the healing process. Tissue-culture experiments, several speakers told Newswatch, can make a factor seem useless, when in fact it's highly efficacious in vivo. Because there is no effective treatment for patients' non-healing wounds, such as chronic diabetic ulcers, the government may be more willing to approve factors for testing, Schultz notes. TMG, the conference sponsor , estimates that 20% of adult diabetics--who number as much as two percent of the population--will develop such wounds. They estimate 1992's U.S. market for all GF applications at $1 billion.

The meeting heard that human chronic leg ulcers previously unresponsive for two years, were healed by a natural mix of factors found in bovine thrombinactivated platelet releasate. Alice Gottlieb, assistant professor , The Rockefeller University, New York City, says that her laboratory will next "analyze the releasate for ingredients--some of which are already characterized--and test non-healing wound fluids themselves, to see if there's a substance lacking, or present, and acting as an inhibitor."

The lack of chronic-wound animal models is fomenting a trend in growth-factor research, says John C. Fiddes, vice-president and deputy director of research, California Biotechnology, Inc., Mountain View. "Instead of testing in healthy animals that heal well, there's a movement to develop impaired models, with diabetes or chemotherapy or poor nutrition."

Bones may prove easier to heal, suggests Arup Sen, vice-president, corporate development, Ingene, Inc., Santa Monica, Calif., because although they're made of dynamic **tissue** , bones know how to "remodel" to just the size and shape they should be. Delivery is trickier than for surface wounds. Sen's company gets osteogenic factor to the site via surgically **implanted** devices-- **biodegradable** or not. For instance, ceramic plugs and metal plates that mimic a hip bone have factor freeze-dried on the surface, or embedded in it. "One might be able to enhance healing even more with other, complementary growth factors," Sen muses, "but without a device to deliver them to the site, I don't know how effective they'll be."

15/7/14 (Item 14 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications

0113821
Collagen, INGENE, vie to develop bone-building osteogenic proteins
Biotechnology Newswatch March 6, 1989; Pg 5; Vol. 9, No. 5
Journal Code: BIO ISSN: 0275-3687
Dateline: NAPLES, FLORIDA

Word Count: 432
TEXT:
Proteins that repair bones are emerging as company-building growth factors. At least two firms were predicting last month that their products will be knitting fractures and patching bones by the mid-1990s.

Here at the Industrial Biotechnology Association's annual investment briefing, (see page 1, this issue), James T . McKinley, chief financial officer of Collagen Corp., Palo Alto, Calif.., described two newly discovered proteins that together create new bone tissue, and open a billion-dollar market.

In the same week, in Santa Monica, Calif, Arup Sen, vice-president for research of International Genetic Engineering, Inc. (INGENE), announced the issuance of U.S. Patent #4,804,744, protecting "certain proprietary protein preparations--osteogenic factors--that promote bone formation." INGENE project director Thomas F. Parsons tells Newswatch, "Our product is completely distinct and different from that of Collagen. Ours acts without need for a co-factor ." Collagen's McKinley allows that in the bone-repair area, "Y es, our two firms are head-on competitors."

Collagen calls its two bone-growth proteins Transforming Growth-Factor -beta (TGF-b) and Osteoinductive Factor (OIF).

One of the firm's senior research scientists, Saeid Seyedin, reported to a joint meeting of the American Societies of Cell Biology and Biochemistry and Molecular Biology, six weeks ago in San Francisco, that when he **implanted** OIF and TGF-b, embedded in a **collagen** matrix, under the skin or in the muscle of rats, the two factors acted together to induce formation of cartilage, then new bone **tissue** . OIF , he reported, is a glycoprotein weighing 22 to 28 kilodaltons, purified from bovine bone.

Now, Collagen is working with Oncogen Therapeutics, Seattle, a subsidiary of Bristol-Myers Co., New Y ork City, and Codon, Inc., S. San Francisco to clone the human bone-repair proteins. Collagen has a long-standing arrangement with Zimmer, Inc., War saw Indiana, also a Bristol division, for joint development of its bone-factors' orthopedic applications.

INGENE has a joint venture with Biomet, Inc., Warsaw, Ind., which is providing the firm with $4.5 million in a staged investment. The Santa Monica company has also concluded a contract with Tokuyama Soda, Co., Ltd., Tokyo, which aims to use its protein in craniofacial bone reconstruction. "We are now testing the natural product pre-clinically ," says Parsons, "with a view to clinical trials this year. We will characterize the protein species to clone a human recombinant, and expect to reach the market within on the order of two years."

Creative Biomolecules, Hopkinton, Mass., has a corporate relationship with Stryker Corp., Kalamazoo, Mich, for development of osteogenic proteins, and Genetics Institute, Inc., Cambridge, Mass., reported late last year (Science, Dec. 16, '88) that it had cloned a human "bone morphogenetic protein."

15/3,AB,K/6 (Item 6 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00062504
Genzyme's aims in biotech remodelling
Scrip 1109 p8, June 09, 1986 (19860609)
WORD COUNT: 1027

...into an exclusive agreement with Collagen Corporation to develop products combining purified hyaluronic acid and **collagen** for soft **tissue implants**. The agreement provides for the payment to Genzyme of a licence fee, grants Genzyme the...

15/3,AB,K/8 (Item 8 from file: 635)
DIALOG(R)File 635:Business Dateline(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.
0033625 87-12325
Can Bio-Vascular Hit a Home Run With Its Bypass Graft?
Beulke, Diane
Minneapolis-St Paul CityBusiness (Minneapolis, MN, US), V5 N8 s1 p1
PUBL DATE: 870701
WORD COUNT: 1,286
DATELINE: Roseville, MN, US
TEXT:
... Medtronic is working on artificial **grafts** made of synthetic materials. Dr. Glen Nelson, Medtronic executive vice president, says that so far there has not been any unusual success with larger diameter animal **tissue grafts** . The **tissue** hasn't held up well in some cases, he says, and there have been problems...

15/3,AB,K/10 (Item 10 from file: 129)
DIALOG(R)File 129:PHIND(Archival)
(c) 2004 PJB Publications, Ltd. All rts. reserv.
00159218
Medtronic buys Versaflex Delivery
Clinica 301 p7, May 25, 1988 (19880525)
STORY TYPE: F WORD COUNT: 454
...valves formed of **tissue** that closely approaches the action and durability of natural heart **tissue; grafts** that replace diseased or damaged blood vessels; oxygenators that introduce oxygen to venous blood outside...

15/3,AB,K/15 (Item 15 from file: 635)
DIALOG(R)File 635:Business Dateline(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.
0144652 90-27681
Matrix Pharmaceutical Completes $8 Million Second Round of VC Financing
Holley, Beverly
Business Wire (San Francisco, CA, US) s1 p1
PUBL DATE: 900607
WORD COUNT: 1,436
DATELINE: Menlo Park, CA, US
TEXT:
...founding Matrix Pharmaceutical, Luck was co-founder, vice president and director of Technical Affairs of **Collagen** Corp., a public company noted for **collagen implants** to restore damaged **tissue** . Luck received a B.S. from Stanford University.
-- Bert C. DelVillano, Ph.D., president, chief...

21/7/1 (Item 1 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
(c) 2004 McGraw-Hill Co. Inc. All rts. reserv.
0201960
PATIENT, HEAL THYSELF-- WITH LAB-GROWN CELLS: Marrow and skin made outside

the body improve on nature

Business Week March 20, 1989; Pg 148; Number 3076
Journal Code: BW ISSN: 0007-7135
Section Heading: Science & Technology
Word Count: 1,095

BYLINE:
Naomi Freundlich in New York

TEXT:
The small red vial in Gail Naughton's hand contains just a couple of teaspoonfuls of one of the most precious substances in the body: living bone marrow. Kill those cells, and the immune system is destroyed; red blood cells are no longer produced. Without frequent transfusions, death follows.

The destruction of those vital cells is just what happens in many cancer treatments. So before doctors prescribe heavy regimens of chemotherapy drugs or radiation, they increasingly extract the patient's bone marrow, store it during treatment, and then reinject it. The painful process requires a liter of marrow and about 200 needle punctures in the hip or pelvic bones during a three-day hospital stay.

Naughton, the founding scientist of Marrow-Tech Inc., thinks she has a better way: extract barely a tablespoonful of a **patient's marrow**--an amount that can be obtained in a doctor's office under local anesthetic--and culture it to produce enough for transplanting. The procedure is so easy that Marrow-Tech envisions healthy people at risk banking their marrow--those who work around radiation or highly toxic chemicals and those in high-risk cancer groups.

OFF-THE-SHELF. Culturing bone marrow in the laboratory is just one of the projects under way at the handful of biomedical companies that are growing human cells and tissues in the laboratory. Off-the-shelf skin and artificial blood vessels will also soon be ready for testing on humans. Scientists talk seriously of supplying patients at some later date with lab-grown livers and bones, growing contaminant free blood, and correcting genetic diseases with lab-grown cells.

Even sooner, cultivated cells and tissues may create a lucrative market as alternatives for expensive--and controversial--tests on animals. With tests based on cultured tissues, "we are able to see how drugs work and how diseases happen and how to cure them," Naughton says.

Getting human tissue to grow in test tubes is no mean feat, however. While many kinds of cells will live in cultures, they soon stop multiplying in the absence of complex chemical signals from other cells in the body. So researchers have had to mimic the environment of the body with growing systems where living support cells provide a surface onto which cultured cells cling.

With its culturing system, Marrow-Tech hopes to be the first company to grow bone marrow that will proliferate once transplanted into a human. The problem with cultured marrow in the past has been that it usually does not contain enough **stem cells**, the cells that continuously multiply to produce the various types of blood cells. "The **stem cells** are a little like the Holy Grail," says Ron Cohen, medical director of the Elmsford (N. Y.) company.

Marrow-Tech says experiments with animals are encouraging: It has gotten test-tube marrow to grow in rats. Even so, concedes Naughton, "until we do actual transplants in humans we won't know the degree of **stem cell** activity we have." Those tests will begin next year.

REPLACEMENT SKIN. If the tests succeed, doctors will be able to attack

cancers with heavier doses of chemotherapy drugs. Bone marrow transplants already have increased from 230 in 1979 to almost 2,500 in 1987. But the bone marrow can harbor cancerous cells. If a tablespoon-size sample is used to grow the marrow, doctors have a better chance of weeding out cancer cells than they do of purging them from a full liter.

Marrow-Tech and several other companies are also trying to develop replacement skin for the 22,000 burn patients who require grafts each year. The first skin substitute was developed by Howard Green, chairman of Harvard Medical School's department of cellular physiology, who devised a system for growing sheets of human keratinocytes, the outer epidermal cells, from small samples of a burn victim's skin.

That process is now licensed to Cambridge-based Biosurface Technology Inc., which grows skin grafts and ships them to burn patients within a three-hour flight of Boston. "We can expand a postage-stamp-size biopsy one thousandfold in three weeks," declares Biosurface President David L. Castaldi. "That's enough to cover the entire body."

Others are trying to find ways to produce skin replacements that do not rely on the patient's own cells. These companies envision a skin replacement stripped of those cells that could trigger rejection, so it could be used without a three-week wait.

One of these, Organogenesis Inc., also in Cambridge, has developed a two-layered skin substitute that it calls a living skin equivalent. There is little independent data to support the claim of the company's founder, Dr. **Eugene Bell** , that the skin substitute is rejection-proof. But Bell, a former researcher at the Massachusetts Institute of Technology, believes he will be proven right when tests on patients begin this year.

Marrow-Tech has another approach. It grows its artificial base layer, or dermis, by **seeding a biodegradable mesh with fibroblasts**, cells that produce the structural protein collagen and other molecules that support cell growth. "Dermal fibroblasts are usually not rejected," says Naughton. Grafting this generic dermis over a wound promotes healing by preventing the surrounding skin from contracting, which leads to scarring and fluid loss. After 10 days the surface of the graft is sprinkled with the patient's own cultured epidermal cells.

SPARING ANIMALS. In the short run, supplying artificial skin and other cells for toxicity testing will be the biomedical companies' bread and butter. In response to the animal rights movement, money is flooding into the development of test-tube alternatives to animal tests. For example, artificial skin can be used to test cosmetics and pharmaceuticals to see if they produce irritation--instead of using Draize tests in which the compound is placed in a rabbit's eye. "Toxicity testing is a business in itself," says Arthur Benvenuto, Marrow-Tech's CEO, who forsees a $1 billion market.

Clonetics Corp. in San Diego hit the market first with Epipack, a kit that uses cultured keratinocytes to measure chemical toxicity. With requests for its $250 kit pouring in from laboratories, Clonetics is now branching into kits that use pigment cells and connective tissue cells. Meanwhile, Organogenesis recently received a patent on TestSkin, a kit that uses its skin substitute. Marrow-Tech also plans to market a skin-test kit by yearend.

At the same time, the tissue-growers are striving to meet more ambitious goals. Organogenesis is developing blood vessels with Eli Lilly & Co. It also has made an artificial rat thyroid gland and is working on growing lung, intestine, and bone cells. Marrow-Tech hopes its technique eventually will help treat genetic diseases by culturing patients' cells, replacing

any defective genes, and then injecting healthy cells back into the body. Ultimately, the body's own tissues may be the best medicine of all.
TABLE:
(available online)
TEST TUBE TISSUE
Who's working on what
Marrow-Tech, Elmsford, N.Y.
Bone marrow, skin, and liver cells
Organogenesis, Cambridge, Mass.
Cells from skin, arteries, pancreas, bone, lungs, and the intestines
Biosurface Technology, Cambridge, Mass.
Skin cells
Clonetics, San Diego
Skin cells
DATA: BW
SPECIAL FEATURE:
Photograph: DR. NAUGHTON INSPECTS BONE MARROW
PHOTOGRAPH BY KENT HANSON
Photograph: RED AND WHITE BLOOD CELLS
COLONIZE ON A NYLON MESH
Table

22/6/1 (Item 1 from file: 129)
00071482
Organogenesis seeking funds, December 12, 1986 (19861212)
WORD COUNT: 593

22/6/2 (Item 2 from file: 129)
00026152
Flow to pull out of jv, March 02, 1984 (19840302)
WORD COUNT: 231

22/6/5 (Item 1 from file: 624)
0055848
AGING: CAN IT BE SLOWED?: LEARNING WHY WE GROW OLD MAY HELP SCIENCE DELAY THE RAVAGES OF TIME
February 8, 1988
Word Count: 2,637 *Full text available in Formats 5, 7 and 9*

22/9/3 (Item 3 from file: 129)
DIALOG(R)File 129:PHIND(Archival)

00011847
Flow-Meadox vascular graft jv
Clinica 55 p8, November 26, 1982 (19821126)
WORD COUNT: 250
Flow General Inc and Meadox Medicals Inc have announced a joint venture agreement for the research, development, manufacture and marketing of human vascular **grafts**, both for arteries and veins. One of the objectives of the joint venture, which the partners state will do business under the name Flow-Meadox Joint Venture, will be "to develop a readily available alternative to the autogenous saphenous vein, used for microperipheral or coronary by-pass procedures, and currently unsuitable or unavailable 30-50%

of the time".
The joint venture, according to the Flow/Meadox announcement, will be a sublicensee for the use of **cell reaggregation technology**, based on a **collagen** matrix, developed at the Massachusetts Institute of Technology (MIT) by Dr Eugene Bell and colleagues. Flow General is the primary licensee for this technology, which has in the first instance been applied to the development of a synthetic skin. The first stage of the Flow-Meadox activities will involve both parties in funding further research at MIT; it is expected that outside financing will be sought before production commences.
Principal biomedical activities of Flow General include the manufacture and marketing of products and instruments for biological research and biomedical facilities. The company says it now has a marketing presence in "some 130 nations". Meadox Medicals, based in Oakland, New Jersey, is principally a manufacturer and marketer of vascular grafts and diagnostic/monitoring instruments for critical body functions. Meadox has its own R&D programme in biomaterials, and claims to be the only manufacturer of both synthetic (Dacron) and biological vascular prostheses.

22/7/6 (Item 2 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications

0053604
FAKE SKIN WITH REAL PROMISE
Business Week January 18, 1988; Pg 84; Number 3034
Journal Code: BW ISSN: 0007-7135
Section Heading: Inside Wall Street
Word Count: 299
BYLINE: GENE G. MARCIAL
TEXT:
Looking for a glamour stock that got hammered in the crash and might really rocket if the market stays buoyant? Try Organogenesis. The Cambridge (Mass.) company is working on methods to produce replacements for human skin, blood vessels, bones, and even the pancreas. The stock soared to 50 in just nine months from its offering price of $8 a share in December, 1986. It split 2-for-1 in September and now trades at 16.

The company hasn't earned a dime from operations yet. But one Boston money manager who is buying the stock calls Organogenesis a "unique company with a unique technology, capable of producing such incredible things as living skin equivalent that can be used as skin replacement for burn victims." At least one large company is also impressed. Eli Lilly has signed a pact to provide scientific and technical support to Organogenesis to produce blood-vessel equivalents in return for exclusive worldwide rights to market the product. Rumors are that Lilly has committed $50 million to the project. The blood-vessel equivalents are intended to replace arteries clogged by atherosclerosis.

The company's basic technology was developed by Organogenesis founder **Eugene Bell**, now chairman, when he was a biology professor at the Massachusetts Institute of Technology. Bell says Organogenesis will make its own products and rely on joint-venture partners, such as Eli Lilly, to market them. The company's first commercial product will be a "biotest system," which it plans to market in 1988, says CEO Herbert M. Stein. The system will contain artificially produced living skin to test the reaction of human skin to chemicals, drugs, pesticides, and cosmetics.

The company expects to market its living skin equivalent for use by burn victims in three to four years. Clinical trials on the equivalent have

started at Western Pennsylvania Hospital in Pittsburgh.

22/7/7 (Item 1 from file: 635)
DIALOG(R)File 635:Business Dateline(R)

0084997 89-08670
Organogenesis to Patent Living Human Organ Equivalents; U.S. Patent Office Issues Notice of Allowance
Stein, Herbert M.; Trahan, Ronald
Business Wire (San Francisco, CA, US) s1 p1
PUBL DATE: 890216
WORD COUNT: 346
DATELINE: Cambridge, MA, US
TEXT:

Organogenesis Inc. (AMEX:ORG), a biotechnology company which develops and manufactures living human organ equivalents, Thursday announced that the U.S. Patent Office has issued a notice of allowance for the company's application to patent a test system that incorporates its living human skin equivalent as a component.

The patent will also cover the use of other living tissue and organ equivalents as "testorgans."

"We are pleased," said Dr. **Eugene Bell** , president and chief scientific officer of Organogenesis, "particularly at this time, as we get ready to bring our first product, TESTSKIN, to market. We believe that TESTSKIN will revolutionize product safety testing and product development in this country and elsewhere."

TESTSKIN, made possible by unique and proprietary technology developed by Organogenesis, is sterile living human skin equivalent. The company predicts that TESTSKIN will be used, in lieu of animals and cadaver skin, not only for testing the effectiveness and safety of chemicals, pharmaceuticals, pesticides, cosmetics, soaps and detergents on human skin, but also for testing the efficacy of new products early on in their development stages.

"TESTSKIN will take the guesswork out of product safety testing and product development and make those important functions more of a science," said Bell.

"Rather than depend on the difficult-to-evaluate qualitative changes at the skin's surface that signal irritation or damage after application of a potentially irritating or injurious substance, the users of TESTSKIN will be able to measure and quantify the first chemical responses that would later lead to gross changes like redness and swelling," Bell added.

Bell also stated that, in addition to testing products for their toxicity and usefulness, "Hosts of substances which are sought for their remedial, or protective value such as suntan and sunscreen lotions, can be readily tested on TESTSKIN, because it is a living organ equivalent that closely resembles actual human skin in its appearance, functional proprieties and responses."

Organogenesis, a biotechnology company which fabricates human tissues and organs that closely resemble nature's own products, is dedicated to producing organ equivalents to meet clinical needs for people and testing needs for industry and research.

22/9/4 (Item 4 from file: 129)

DIALOG(R)File 129:PHIND(Archival)

00009834
Marion Labs' synthetic skin'
Clinica 50 p12, September 17, 1982 (19820917)
WORD COUNT: 588

Marion Laboratories Inc has been granted a licence on a Massachusetts Institute of Technology (MIT) patent covering the Stage I version of a polymeric synthetic skin developed by Dr loannis V Yannas of MIT and Dr John F Burke of the Massachusetts General Hospital. Clinica understands that the product could be commercially available within the next 18 months or so, although Marion has not at this stage set a firm launch target, mainly because of the unpredictability of timing regulatory approval procedures. The technical problems associated with developing large-scale manufacturing processes are largely solved, however, Clinica understands, and large scale clinical trials are about to begin.

The Yannas and Burke material, described recently by Dr Yannas to the 28th Macromolecular Symposium of the International Union of Pure and Applied Chemistry and reported in Science (1982 217:522), is based on a **template** made of a highly porous polymer of **collagen fibres** with chondroitin-6-sulphate (a naturally-occurring cartilage polysaccharide) covalently bound. This is initially covered with a layer of medical-grade silicone rubber for mechanical strength and to prevent infection and dehydration. **Mesodermal cells migrate into the collagen polymer**, forming a new dermis and the synthetic skin itself is slowly degraded. The silicone layer is removed after about 20 days. Using the Stage I version, it is then necessary to graft an epidermal layer on top of the new dermis, taken from elsewhere on-the patient's body; grafting epidermis alone, however, is much less traumatic than a full autograft, say the developers. This procedure has been used successfully by Dr Burke and his colleagues at the Massachusetts General Hospital to treat 35 patients with severe burns. Marion's co-ordinated clinical trials will extend this work, both at Massachusetts General and at other hospitals in the US.

In the Stage II version of the material, which Drs Yannas and Burke are still developing and which has so far only been tested in guinea pigs, the **collagen template is 'seeded', with basal cells isolated from a small piece of the subject's skin**, by centrifugation. No culturing is involved and the graft can reportedly be prepared in about four hours. These basal cells proliferate to form an epidermis, so that when the silicone layer is removed in this case, no further graft is needed. Clinical trials of the Stage Il version, say the developers, should begin next year.

Marion, based in Kansas City, is primarily a manufacturer of ethical pharmaceuticals. The interest in synthetic skin has arisen as part of the company's declared long-term commitment to burn patients - Marion claims its Silvadene silver sulphadiazine ointment is used in 90% of severe burn cases in the US. The company also has some device interests, mainly in the microbiology diagnostics area, and acquired drug detection product manufacturer, Analytical Systems Inc, last year.

The Yannas and Burke development, Clinica understands, differs

significantly from another skin substitute project at the MIT, directed by Dr Eugene Bell, for which Flow General Inc is the commercial licensee, as previously reported. Dr Bell's technique also involves seeding cells in a collagen lattice, but the mixture is cultured for a number of days prior to grafting. This preshrinks the gel, which is then sutured over the wound, and no external layer eg silicone is needed. Observers have commented that this material more nearly resembles a true 'synthetic skin' than the Yannas and Burke material. Clinical trials of this material are now underway, at the Beth Israel Hospital in Boston, but Dr Bell believes that it is between three and five years away from commercial availability.

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File  94:JICST-EPlus 1985-2004/Jul W4
File 144:Pascal 1973-2004/Aug W2
File  95:TEME-Technology & Management 1989-2004/Jun W1
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Jul
File   6:NTIS 1964-2004/Aug W3
File   8:Ei Compendex(R) 1970-2004/Aug W2
File  35:Dissertation Abs Online 1861-2004/May
File  65:Inside Conferences 1993-2004/Aug W2
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W2
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
Set     Items   Description
S1     107587   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
              STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
              OR FOETUS OR FAETUS)
S2    1241133   TISSUE
S3     671549   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
              )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4       1109   TISSUE()GRAFT? ?
S5     711869   IMPLANT? OR GRAFT?
S6    3811326   MIX? OR COMBIN?
S7         84   S1(10N)S3:S4(10N)S6
S8         37   S7/2000:2004
S9         44   S7/1995:1999
S10         2   S7/1991:1994
S11         1   S7 NOT S8:S10
S12       835   S2(10N)S3:S4(10N)S6 NOT S7
S13       114   S5/TI,DE AND S12
S14        54   S13/2000:2004
S15        50   S13/1991:1999
S16        10   S13 NOT S14:S15
S17        10   S16 NOT S11
S18        10   RD (unique items)
S19        10   Sort S18/ALL/PY,A
S20       120   S1(10N)S3:S4 AND S5/TI,DE
S21       213   S1(10N)S3:S4 AND S5
S22       183   S21 NOT (S13 OR S7)
S23        53   S22/1991:1999
S24       129   S22/2000:2004
S25         1   S22 NOT S23:S24
S26       324   S1(10N)S3:S4 NOT (S7 OR S13 OR S22)
S27       306   RD (unique items)
S28        99   S27/1991:1999
S29       149   S27/2000:2004
S30        58   S27 NOT S28:S29
S31         0   S5 AND S30
S32        58   Sort S30/ALL/PY,A

11/7,K/1     (Item 1 from file: 35)
DIALOG(R)File  35:Dissertation Abs Online
(c) 2004 ProQuest Info&Learning. All rts. reserv.
01100203  ORDER NO: NOT AVAILABLE FROM UNIVERSITY MICROFILMS INT'L.
MAMMARY TUMOURS IN THE FEMALE DOG: A STUDY OF TUMOUR HISTOGENESIS AND DNA
PLOIDY IN RELATION TO HISTOLOGY, PROGNOSIS AND TUMOUR PROGRESSION
  Author:  HELLMEN, EVA
  Degree:  VET.MED.DR
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Year: 1989
Corporate Source/Institution: SVERIGES LANTBRUKSUNIVERSITET (SWEDEN) (0697)
Source: VOLUME 51/02-C OF DISSERTATION ABSTRACTS INTERNATIONAL. PAGE 258. 42 PAGES
ISBN: 91-576-3975-2
Publisher: SVERIGES LANTBRUKSUNIVERSITET, S-750 07 UPPSALA, SWEDEN

Mammary tumours are the most common tumours in the female dog. These types of tumours have a complex histology, forming epithelial, mixed and mesenchymal tumours. The classification of canine mammary tumours varies according to varying opinions of the tumour histogenesis.

This investigation was designed to increase the understanding of canine mammary tumours by finding out valuable diagnostic and prognostic tools, to study the tumour histogenesis and to establish cell lines.

Flow cytometric DNA analysis and cell proliferation, measured as cells in S-phase, were studied in consecutively-sampled tumours, and related to clinical and histological variables in multivariate analysis. Independent prognostic factors were S-phase rate, age of the dog and histology.

The prognostic value of DNA ploidy and lymph node status varied depending on whether disease-specific mortality was considered or not.

The mammary carcinomas were DNA hypodiploid or hyperdiploid. Tumour progression as studied by DNA ploidy showed multiploidy and polyploidy in the metastases and in one cell line particularly. DNA aneuploidy was also found in some benign tumours.

Expression of tissue specific intermediate filaments was studied by immunocytochemistry. Different tumour types expressed one to four intermediate filament types. These findings, in addition to the fact that the cell line derived from an atypical benign **mixed** mammary tumour formed duct-like structures when grown in **collagen** gels, indicate that there are **stem cells** present in the canine mammary gland.

Five cell lines were established and characterised. They were all successfully inoculated into male nude mice. One cell line was cultured in serum-free tissue culture medium, indicating that it produced growth factors.

It is concluded from this study that cell analysis of canine mammary tumours is of diagnostic and prognostic value. These analyses can be performed on fine-needle biopsies and be used in preoperative diagnostics. It is further of prognostic value to evaluate lymph node status, in situ or infiltrating tumour growth and histology.

Canine mammary tumours are probably derived from pluripotent stem cells located in the mammary epithelium. The established cell lines are valuable tools for further studies of canine mammary tumours.

19/6/1 (Item 1 from file: 6)
0564484 NTIS Accession Number: AD-A027 631/1/XAB
Response of Combined Electrical Stimulation and Biodegradable Ceramic
(Rept. no. 1 (Annual), 1975-1976)
29 Dec 75

19/6/2 (Item 2 from file: 8)
00840501
Title: STUDIES ON COMPOSITES OF COLLAGEN AND A SYNTHETIC POLYMER.
Publication Year: 1978

19/6/3 (Item 3 from file: 35)

776657 ORDER NO: AAD82-09092
EVALUATION OF A FLUORAPATITE-SPINEL CERAMIC AS A BONE IMPLANT
Year: 1981

19/6/4 (Item 4 from file: 6)
1243994 NTIS Accession Number: AD-D012 226/7
Polylactic-Polyglycolic Acids Combined with an Acidic Phospholipid-Lysozyme Complex for Healing Osseous Tissue
(Patent)
Filed 15 Feb 84 patented 25 Mar 86

19/6/8 (Item 8 from file: 144)
09135906 PASCAL No.: 90-0304287
Subcutaneous implantation **of hydroxylapatite/collagen in induced diabetic and non-diabetic rats**
1990

19/7,K/5 (Item 5 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
00766519 JICST ACCESSION NUMBER: 89A0531784 FILE SEGMENT: JICST-E
Tissue response to hydroxyapatite, human dentin and enamel.
TAGUCHI KOUSEI (1); KAMIBAYASHI TOHRU (1); FURUYA KAZUKI (1); OHKURA MASAFUMI (1); KUROSAKA YASUO (1); MUNEYUKI HEISUKE (1); MIKI AKIRA (1); TAMURA NAOHARU (1); INOUE HIROSHI (1)
(1) Fukuoka Dental College
Fukuoka Shika Daigaku Gakkai Zasshi(Journal of Fukuoka Dental College), 1988, VOL.15,NO.3/4, PAGE.154-158, FIG.8, REF.24
JOURNAL NUMBER: Y0077AAG ISSN NO: 0385-0064
UNIVERSAL DECIMAL CLASSIFICATION: 616.314-7
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: Powdered enamel and dentin, these **mixture** and **hydroxyapatite** were unjected into the subdermal connective **tissue** of dorsal surface of 20 rats. The animals were killed after 100 days. Analysis of tissue response was as follows: 1. The inflammatory response to powdered dentin was not noted. Some cells surrounding this material and partially, dystrophic calcification were seen. 2. The inflammatory response and calcified-like tisuue to powdered enamel, and some cells surrounding those were not seen. 3. Histologic findings to powdered dentin and enamel came to the same thing when these material were injected individually. 4. The inflammatory response and calcified-like tisuue to hydroxyapatite were and not seen, but some cells surrounding those was seen.(author abst.)
...DESCRIPTORS: biological **implantation** ;

19/7,K/6 (Item 6 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
00691123 JICST ACCESSION NUMBER: 88A0536156 FILE SEGMENT: JICST-E
The histological study of the hydroxyapatite and alumina coated implant .
AO HISAAKI (1)
(1) Matsumoto Dental College

Matsumoto Shigaku(Journal of the Matsumoto Dental College Society), 1988, VOL.14,NO.1, PAGE.19-40, FIG.13, REF.24
JOURNAL NUMBER: Z0433BAA ISSN NO: 0385-1613
UNIVERSAL DECIMAL CLASSIFICATION: 616.314-7
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: Metal implants such as cobalt-chromium alloy or titanium have been used as materials of endossesous dental implants. These metal implants are surrounded by connective tissue in the alveolar bone. Recently, a variety of biocompatible ceramic implants have been apllied to endossesous implants in the expectation of tighter bonding. Hydroxyapatite ceramic implants are anchored to the bone without the exsistence of the connective tissue. The brittle characteristic of hydroxyapatite ceramics, however, makes it difficult to shape the blade-type implant which offers a wide area of contact with the bone. A blade-type implant of titanium coated by hydroxyapatite, designed by M. Ito and K. Suzuki in 1981, overcame this difficulty. Preliminary experiments showed that the hydroxyapatite coated implant could be tightly anchored to the mandibular bone of test monkeys. In the present study, more detailed architecture of the tissue-implant interface was observed by light microscopy and compared implants coated with various mixtures of almina. In addition, the calcified appearance of the surrounding bome was investigated by microradiography and X-ray microanalysis. The results were as follows: 1) In the case of a pure aluminina-coated implant, the ingrown bone as well as thin fibrous connective tissues surrounded the implant within 6 months after insertion. 2) In the case where a pure hydroxyapatite coated implant was inserted for 6 months, the trabecular bone grew close to, or in contact with the coated surface of the implant. After 12 months, the implant was connected directly to the remodeled bone, without any soft tissues. 3) By increasing of **mixture** percentage of **hydroxyapatite** , fibrous connective **tissue** between the implant and the bone, which was marked in a pure alumina-coated implant, became thinner. The result of 80% hydroxyapatite -20% alumina coating seemed to be satisfactory, considering the necessity of alumina to increase the strength of the coating.(abridged author abs
...DESCRIPTORS: dental **implantation** ;

19/7,K/7 (Item 7 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.
09265718 PASCAL No.: 91-0056093
Investigation of a hydroxyapatite and calcium sulfate composite supplemented with an osteoinductive factor
Student research award in the graduate degree candidate category, 16 th annual meeting of the society for biomaterials, Charleston, SC, May 20-23, 1990
DAMIEN C J; PARSONS J R; BENEDICT J J; WEISMAN D S
State univ. New Jersey, UMDNJ/New Jersey medical school, laboratories orthopaedic res., Newark NJ 07103, USA
Society for Biomaterials. Annual meeting. 16 (Charleston SC USA) 1990-05-20
Journal: Journal of biomedical Materials Research, 1990, 24 (6) 639-654

ISSN: 0021-9304 CODEN: JBMRBG Availability: INIST-13764; 354000008519400010/NUM
No. of Refs.: 36 ref.
Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)
Country of Publication: USA
Language: English
In the search for a suitable bone graft substitute, a study was conducted using a material that combined a proven osteoconductive composite, hydroxyapatite-calcium sulfate (HA/CS), with an osteoinductive factor, bovine osteogenic factor (OF). Osteogenic factor, with the appropriate delivery system, can induce bone formation in the rabbit muscle. It may also increase the rate of bone formation at early time periods in a bony defect site when the delivery system is the osteoconductive composite HA/CS
English Descriptors: Biomaterial; Composite material; **Hydroxyapatite** ; Calcium Sulfates; Regeneration stimulating activity; Osteogenesis; Indexing; **Combined** treatment; **Implant** ; **Tissue rupture** ; Bone; Osteoarticular system; Animal; Rabbit; In vivo; Therapeutic efficiency; Orthopedic surgery; Histology; Biological effect...

19/7,K/9 (Item 9 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
01147801 JICST ACCESSION NUMBER: 90A0920154 FILE SEGMENT: JICST-E
A study of alveolar ridge formation. An examination of porous hydroxyapatite ceramic blocks implanted in combination with homogeneous bone marro tissue in the jaws of edentulous rats.
WADA MORIO (1)
(1) Nihon Univ., School of Dentistry
Nichidai Shigaku(Nihon University Dental Journal), 1990, VOL.64,NO.5, PAGE.718-729, FIG.25, TBL.1, REF.33
JOURNAL NUMBER: G0581AAS ISSN NO: 0385-0102 CODEN: NISHB
UNIVERSAL DECIMAL CLASSIFICATION: 616.314-7
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

19/7,K/10 (Item 10 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
01064916 JICST ACCESSION NUMBER: 90A0624757 FILE SEGMENT: JICST-E
Histopathological studies on the healing of bony defects following implant of composite materials in dogs. Ratio of fresh autogenous bone to hydroxyapatite.
MATSUMOTO YASUGI (1)
(1) Tokyo Dental College, Graduate School
Nippon Shishubyo Gakkai Kaishi(Journal of the Japanese Association of Periodontalogy), 1990, VOL.32,NO.2, PAGE.508-533, FIG.49, REF.65
JOURNAL NUMBER: S0411CAY ISSN NO: 0385-0110
UNIVERSAL DECIMAL CLASSIFICATION: 616.314-7
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: The purpose of this study was to investigate the effects of

porous hydroxyapatite combined with fresh autogenous bone. Part 1: Two months after extracting P3 and P4 from the adult dog mandible, bony defects were produced in the mandible. Into each defect, **hydroxyapatite combined with bone** (the ratio of fresh autogenous bone to porous **hydroxyapatite** ; 1:1, 3:1, 6:1) and **hydroxyapatite** alone were implanted. Dogs were sacrificed after 3, 6 and 12 weeks. The examination of obtained **tissue** specimens indicated that **hydroxyapatite combined** with bone (at a ratio of 3:1) was more suitable than others as an implant material because it promoted tight bony fixation. Part 2: Three-walled osseuous defects with plaque-affected roots were prepared and filled with fresh autogenous bone, hydroxyapatite and hydroxyapatite combined with bone (at a ratio of 3:1) during a period of 1, 2, 3, 4 and 8 weeks. As a control, defects were treated with flap surgery without filling with implant material. Histomatric comparison of sections of **hydroxyapatite combined** with bone (at a 3:1 ratio) showed that a periodontal ligament existed between the root and alveolar bone containing **hydroxyapatite** . Newly-formed cementum was seen on the root surface. As seen above, **hydroxyapatite combined with bone** (at a 3:1 ratio) showed good affinity with bony **tissue** and can be advantageous as bone graft material in periodontal therapy. (author abst.)
...were treated with flap surgery without filling with implant material. Histomatric comparison of sections of **hydroxyapatite combined** with bone (at a 3:1 ratio) showed that a periodontal ligament existed between the root and alveolar bone containing **hydroxyapatite** . Newly-formed cementum was seen on the root surface. As seen above, **hydroxyapatite combined** with bone (at a 3:1 ratio) showed good affinity with bony **tissue** and can be advantageous as bone graft material in periodontal therapy. (author abst.)
...BROADER DESCRIPTORS: artificial **implant** ;

25/7,K/1 (Item 1 from file: 434)
DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.
05808202 Genuine Article#: ST290 Number of References: 32
Title: TREATMENT OF SEVERE IMMUNE DEFICIENCIES WITH BONE-MARROW GRAFT AND FETAL TISSUE GRAFTS
Author(s): TOURAINE JL
Corporate Source: HOP EDOUARD HERRIOT,INSERM,U80,UNITE TRANSPLANTAT & IMMUNOBIOL/F-69374 LYON 8//FRANCE/
Journal: REVUE FRANCAISE D ALLERGOLOGIE ET D IMMUNOLOGIE CLINIQUE, 1984, V 24, N1, P35-46
Language: FRENCH Document Type: ARTICLE

32/6/1 (Item 1 from file: 144)
00500346 PASCAL No.: 74-0014003
SURVIVAL OF HEMATOPOIETIC AND LEUKEMIC COLONY-FORMING CELLS IN VIVO AFTER ADMINISTRATION OF MITOMYCIN C OR PORFIROMYCIN
(SURVIE DES CELLULES HEMATOPOIETIQUES ET LEUCEMIQUES FORMANT DES COLONIES IN VIVO APRES ADMINISTRATION DE MITOMYCINE C OU DE PORFIROMYCINE)
1973

32/6/2 (Item 2 from file: 144)
00498605 PASCAL No.: 74-0012262
KINETICS OF THE LETHAL EFFECT OF ACTINOMYCIN D ON NORMAL AND LEUKEMIC

CELLS
(CINETIQUE DE L'EFFET LETHAL DE L'ACTINOMYCINE D SUR DES CELLULES NORMALES ET LEUCEMIQUES)
1973

32/6/3 (Item 3 from file: 144)
04036132 PASCAL No.: 75-0006327
THE INFLUENCE OF CHLORAMPHENICOL ON THE BONE MARROW HAEMOPOIETIC STEM CELL COMPARTMENT
(INFLUENCE DU CHLORAMPHENICOL SUR LES CELLULES SOUCHES HEMATOPOIETIQUES DE LA MOELLE OSSEUSE)
1974

32/6/4 (Item 4 from file: 144)
00953149 PASCAL No.: 76-0087708
EFFECTS OF BLOMYCIN ON MOUSE BONE-MARROW STEM CELLS.
(INFLUENCE DE LA BLEOMYCINE SUR LES CELLULES-SOUCHE DE LA MOELLE OSSEUSE DE SOURIS)
1975

32/6/5 (Item 5 from file: 144)
01463432 PASCAL No.: 77-0123684
INCREASED DEGRADATION RATES OF PROTEIN IN AGING HUMAN FIBROBLASTS AND IN CELLS TREATED WITH AN AMINO ACID ANALOG.
1976

32/6/7 (Item 7 from file: 144)
01439916 PASCAL No.: 77-0067023
THE ADENOSINE-LIKE EFFECT OF EXOGENOUS CYCLIC AMP UPON NUCLEOTIDE AND PP-RIBOSE-P CONCENTRATIONS OF CULTURED HUMAN LYMPHOBLASTS.
1976

32/6/8 (Item 8 from file: 144)
01418073 PASCAL No.: 77-0010252
L'AZIONE DI ANTIBLASTICI CICLO-SPECIFICI E NON CICLO-SPECIFICI SULLE CFU EMOPOIETICHE DEL TOPO DOPO SALASSO.
(L'ACTION DES ANTIBLASTIQUES CYCLO-SPECIFIQUES ET NON CYCLO-SPECIFIQUES SUR LES CELLULES-SOUCHES HEMOPOIETIQUES DU RAT APRES SAIGNEE)
1976

32/6/9 (Item 9 from file: 144)
02359132 PASCAL No.: 79-0429909
ULTRASTRUKTURELLE BEFUNDE ZUR MIGRATION DER MYOGENEN STAMMZELLEN IM ANLAGEGEBIET DER OBEREN EXTREMITAETEN BEI HUEHNEREMBRYONEN (DEMONSTRATION)
(DONNEES ULTRASTRUCTURALES RELATIVES A LA MIGRATION DES MYOBLASTES (CELLULES-SOUCHES) PRESENTES DANS L'EBAUCHE DU MEMBRE SUPERIEUR DE L'EMBRYON DE POULET (DEMONSTRATION))
1977

32/6/10 (Item 10 from file: 144)
02351230 PASCAL No.: 79-0413193
FIBROBLASTS DEGRADE NEWLY SYNTHESISED COLLAGEN WITHIN THE CELL BEFORE SECRETION
1978

32/6/12 (Item 12 from file: 144)
02714853 PASCAL No.: 80-0137308
EFFECT OF ACTINOMYCIN D AND BUSULPHAN ON STEM CELLS IN NORMAL AND FRIEND VIRUS INFECTED MICE
1979

32/6/13 (Item 13 from file: 144)
02709752 PASCAL No.: 80-0151703
EFFECTS OF DAUNORUBICIN AND DOXORUBICIN, FREE AND ASSOCIATED WITH DNA, ON HEMOPOIETIC STEM CELLS
1979

32/6/14 (Item 14 from file: 144)
02676722 PASCAL No.: 80-0077656
HAIR CELL DEGENERATION IN GUINEA PIGS INTOXICATED WITH KANAMYCIN DURING INTRAUTERINE LIFE. A STRUCTURAL AND ULTRASTRUCTURAL STUDY
1979

32/6/15 (Item 15 from file: 144)
02668509 PASCAL No.: 80-0059369
THE DIFFERENTIATION OF TERATOCARCINOMA STEM CELLS IS MARKED BY THE TYPES OF COLLAGEN WHICH ARE SYNTHESIZED
1979

32/6/16 (Item 16 from file: 144)
02648415 PASCAL No.: 80-0009877
EFFECTS OF GLUCOCORTICOIDS ON FETAL RAT BONE COLLAGEN SYNTHESIS IN VITRO
1979

32/6/17 (Item 17 from file: 144)
02366148 PASCAL No.: 79-0446929
COMPARISON OF THE SENSITIVITIES OF HUMAN, CANINE, AND MURINE HEMATOPOIETIC PRECURSOR CELLS TO ADRIAMYCIN AND N-TRIFLUOROACETYLADRIAMYCIN-14-VALERATE
1979

32/6/18 (Item 18 from file: 144)
03193082 PASCAL No.: 81-0229504
COMPARATIVE TOXICITY OF DETORUBICIN AND DOXORUBICIN, FREE AND DNA-BOUND, FOR HEMOPOIETIC STEM CELLS
1980

32/6/19 (Item 19 from file: 144)
03156553 PASCAL No.: 81-0160989
THIAMPHENICOL AS AN INHIBITOR OF EARLY RED CELL DIFFERENTIATION
1980

32/6/20 (Item 20 from file: 144)
03136291 PASCAL No.: 81-0148592
SELECTIVE IMBALANCES OF CELLULAR IMMUNE RESPONSES BY ADRIAMYCIN
1980

32/6/21 (Item 21 from file: 144)
03118886 PASCAL No.: 81-0153431
NON-SELECTIVE DECREASE OF COLLAGEN SYNTHESIS BY CULTURED FETAL LUNG

FIBROBLASTS AFTER NON-LETHAL DOSES OF ETHANOL
1980

32/6/22 (Item 22 from file: 144)
02980639 PASCAL No.: 81-0012388
PROTECTION OF CYCLING CFUS AGAINST HYDROXYUREA BY LOW DOSES OF ACTINOMYCIN D
1980

32/6/23 (Item 23 from file: 144)
02848814 PASCAL No.: 80-0418789
ROLE OF CHLORAMPHENICOL REDUCTION PRODUCTS IN APLASTIC ANEMIA
1980

32/6/24 (Item 24 from file: 144)
02795851 PASCAL No.: 80-0347913
HORMONAL MEASUREMENT IN RAT ANTERIOR PITUITARY CELL CULTURES: LOSS OF IMMUNOREACTIVE LH COUNTERACTED BY FETAL CALF SERUM AND BACITRACIN
1980

32/6/25 (Item 25 from file: 35)
742743 ORDER NO: AAD81-07769
ORIGIN, GROWTH, DISTRIBUTION AND COMPOSITION OF HEMATOPOIETIC MARROW COLONIES
Year: 1980

32/6/26 (Item 26 from file: 144)
03535765 PASCAL No.: 82-0049633
SENSITIVITY OF MYELOID PROGENITOR CELLS IN HEALTHY SUBJECTS AND PATIENTS WITH CHRONIC MYELOID LEUKEMIA TO CHEMOTHERAPEUTIC AGENTS
1981

32/6/27 (Item 27 from file: 144)
03631529 PASCAL No.: 82-0146905
RECRUITMENT OF OSTEOCLAST PRECURSORS BY PURIFIED BONE MATRIX CONSTITUENTS
1982

32/6/28 (Item 28 from file: 144)
05854313 PASCAL No.: 84-0355795
Effects of basement membrane matrix on the culture of fetal mouse hepatocytes
(Effets de la matrice de la membrane basale sur la culture d'hepatocytes foetaux de souris)
1983

32/6/29 (Item 29 from file: 434)
05328465 Genuine Article#: RG672 Number of References: 59
Title: INVITRO RESPONSES OF HUMAN-PROSTATE TUMOR-CELL LINES TO A RANGE OF ANTI-TUMOR AGENTS

32/6/30 (Item 30 from file: 434)
05143651 Genuine Article#: QR638 Number of References: 45
Title: COMPARATIVE CYTO-TOXICITY OF BISANTRENE, MITOXANTRONE, AMETANTRONE, DIHYDROXYANTHRACENEDIONE, DIHYDROXYANTHRACENEDIONE DIACETATE, AND DOXORUBICIN ON HUMAN-CELLS INVITRO

32/6/31 (Item 31 from file: 434)
05095792 Genuine Article#: QN195 Number of References: 21
Title: CLINICAL CORRELATIONS OF LEUKEMIC CLONOGENIC CELL CHEMOSENSITIVITY ASSESSED BY INVITRO CONTINUOUS EXPOSURE TO DRUGS

32/6/32 (Item 32 from file: 434)
04961533 Genuine Article#: QC838 Number of References: 34
Title: EFFECTS OF AMPHOTERICIN-B ON ADRIAMYCIN AND MELPHALAN CYTO-TOXICITY IN HUMAN AND MURINE OVARIAN-CARCINOMA AND IN L1210 LEUKEMIA

32/6/33 (Item 33 from file: 144)
05323249 PASCAL No.: 85-0023255
Selection and characterization of F9 teratocarcinoma stem cell mutants with altered responses to retinoic acid
1984

32/6/35 (Item 35 from file: 144)
07069205 PASCAL No.: 86-0069309
Kinetics of gentamicin in plasma of nonpregnant, pregnant, and fetal guinea pigs and its distribution in fetal tissues
1985

32/6/36 (Item 36 from file: 144)
07037267 PASCAL No.: 86-0037331
Cell-lineage antigens of the stem cell-megakaryocyte-platelet lineage are associated with the platelet IIb-IIIa glycoprotein complex
1985

32/6/37 (Item 37 from file: 144)
06152579 PASCAL No.: 85-0414379
Effect of sodium vanadate on deoxyribonucleic acid and protein syntheses in cultured rat Calvariae
1985

32/6/38 (Item 38 from file: 94)
00204698 JICST ACCESSION NUMBER: 86A0143209 FILE SEGMENT: JICST-E
Metabolic products of microorganisms. 225. Elloramycin, a new anthracycline-like antibiotic from Streptomyces olivaceus. Isolation, characterization, structure and biological properties., 1985

32/6/39 (Item 39 from file: 144)
08172585 PASCAL No.: 88-0172935
Interactions of bleomycin with reduced and oxidized iron in rat spermatogenic cells
1986-1987

32/6/40 (Item 40 from file: 144)
07385812 PASCAL No.: 86-0386356
Interleukin-1 has independent effects on deoxyribonucleic acid and collagen synthesis in cultures of rat calvariae
1986

32/6/41 (Item 41 from file: 35)
926587 ORDER NO: AAD86-17510

CHANGES IN PROTEOGLYCAN AND COLLAGEN PRODUCTION DURING THE DIFFERENTIATION OF F9 EMBRYONAL CARCINOMA CELLS (GLYCOSAMINOGLYCAN, HEPARAN SULFATE)
Year: 1986

32/6/42 (Item 42 from file: 144)
08520308 PASCAL No.: 89-0069188
Cycle du recepteur de l'insuline et devenir de l'hormone chez l'hepatocyte foetal en culture : relation avec la reponse glycogenique a l'insuline
(Insulin receptor cycle and the cellular degradation of the hormone in cultured fetal hepatocytes. Implication in the glycogenic response to insulin) 1987; 1987

32/6/43 (Item 43 from file: 434)
08375930 Genuine Article#: K3965 Number of References: 36
Title: DEMONSTRATION OF THE ABILITY OF HOFBAUER CELLS TO PHAGOCYTOSE EXOGENOUS ANTIBODIES

32/6/44 (Item 44 from file: 144)
07914979 PASCAL No.: 87-0443268
Effects of endothelial cell growth factor on bone remodelling in vitro
1987

32/6/45 (Item 45 from file: 144)
07834893 PASCAL No.: 87-0314616
Transforming growth factor beta is a bifunctional regulator of replication and collagen synthesis in osteoblast-enriched cell cultures from fetal rat bone
1987

32/6/46 (Item 46 from file: 144)
07764483 PASCAL No.: 87-0244125
Gene transfer to primary normal and malignant human hemopoietic progenitors using recombinant retroviruses
1987

32/6/48 (Item 48 from file: 144)
09561816 PASCAL No.: 91-0352246
Primary culture of marrow core in collagen gels: modulation and transformation of endosteal cells. I: Morphologic observations
1989

32/6/49 (Item 49 from file: 144)
09020291 PASCAL No.: 90-0188472
Low concentrations of cytosine arabinoside, 6-thioguanine, actinomycin-D and aclacinomycin a stimulates the differentiation of normal human marrow myeloid progenitor cells
1989

32/6/50 (Item 50 from file: 144)
09006178 PASCAL No.: 90-0174359
Immunohistochemical localization of proteoglycans in interstitial elements of human pancreas and biliary system
1989

32/6/51 (Item 51 from file: 144)
09004340 PASCAL No.: 90-0172521
Effects of atrial natriuretic factor on cyclic nucleotides, bone resorption, collagen and deoxyribonucleic acid synthesis, and prostaglandin E SUB 2 production in fetal rat bone cultures
1989

32/6/52 (Item 52 from file: 144)
08956540 PASCAL No.: 90-0124676
Retrovirus-mediated gene transfer into embryonal carcinoma and hemopoietic stem cells: expression from a hybrid long terminal repeat
1989

32/6/53 (Item 53 from file: 144)
08895497 PASCAL No.: 90-0063477
Hemopoiesis during thiamphenicol treatment. I: Stimulation of stem cells during eradication of intermediate cell stages
1989

32/6/54 (Item 54 from file: 144)
08864069 PASCAL No.: 90-0031933
Insulin increases the steady state level of alpha -1(I) procollagen mRNA in the osteoblast-rich segment of fetal rat calvaria
1989

32/6/55 (Item 55 from file: 144)
08838447 PASCAL No.: 90-0006310
Parathyroid hormone-related protein modulates the effect of transforming growth factor- beta on deoxyribonucleic acid and collagen synthesis in fetal rat bone cells
1989

32/6/56 (Item 56 from file: 144)
09366305 PASCAL No.: 91-0156683
Collagen gel cultures for detection of spared hematopoietic progenitors in Asta Z 7557 purged human marrows
1990

32/6/57 (Item 57 from file: 144)
09298781 PASCAL No.: 91-0089155
Cortisol enhances the anabolic effects of insulin-like growth factor I on collagen synthesis and procollagen messenger ribonucleic acid levels in cultured 21-day fetal rat calvariae
1990

32/6/58 (Item 58 from file: 34)
00309306 Genuine Article#: DF474 Number of References: 30
Title: ANALYSIS OF CULTURED CHORIONIC VILLI IN A CASE OF OSTEOGENESIS IMPERFECTA TYPE-II - IMPLICATIONS FOR PRENATAL-DIAGNOSIS

32/7,K/6 (Item 6 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.
01454084 PASCAL No.: 77-0100634
CHEMICALLY-DEFINED MEDIUM FOR GROWTH AND DIFFERENTIATION OF MIXED

EPITHELIAL AND CONNECTIVE TISSUES IN ORGAN CULTURE.
HODGES G M; MELCHER A H
IMP. CANCER RES. FUND, LONDON WC2A 3PX,UNITED KINGDOM
Journal: IN VITRO, 1976, 12 (6) 450-459
Availability: CNRS-15474
No. of Refs.: 1 P.
Document Type: P (SERIAL); DU (DUPLICATION) ; A (ANALYTIC)
Country of Publication: USA
Language: ENGLISH
ROLE DE CERTAINS FACTEURS IMPLIQUES DANS LA BIOSYNTHESE DU COLLAGENE ET DE L'HYDROCORTISONE SUR DES CULTURES ORGANOTYPIQUES DE MACHOIRE DE FOETUS DE SOURIS QUI CORRESPOND A UN MODELE DE TISSUS EPITHELIAL ET CONJONCTIF.
English Descriptors: AMINOACID; **COLLAGEN** ; ORGANOTYPIC CULTURE; **CELL** DIFFERENTIATION; EPITHELIUM; **FETUS** ; GLUCOCORTICOID; HORMONE; STEROID HORMONE; JAWS; METABOLISM; CULTURE MEDIUM; CELL PROLIFERATION; OXYGEN; PROTEINS; MOUSE; CONNECTIVE TISSUE...

32/7,K/11 (Item 11 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.
02297479 PASCAL No.: 79-0288585
CROSSLINKING IN TYPE III COLLAGEN **OF** FETAL TISSUE
CANNON D J; DAVISON P F
VETERANS ADMINISTRATION MED. CENT., LITTLE ROCK AR 72206,USA
Journal: BIOCHEM. BIOPHYS. RES. COMMUNIC., 1978, 85 (4) 1373-1378
Availability: CNRS-8252
No. of Refs.: 13 REF.
Document Type: P (SERIAL) ; A (ANALYTIC)
Country of Publication: USA
Language: ENGLISH
ETUDE DU CONTENU EN RETICULATIONS DU COLLAGENE DE TYPE III ISOLE DE L'AMNION BOVIN REDUIT, UN TISSU RICHE EN CE TYPE DE COLLAGENE

32/7,K/34 (Item 34 from file: 434)
DIALOG(R)File 434:SciSearch(R) Cited Ref Sci
(c) 1998 Inst for Sci Info. All rts. reserv.
07327887 Genuine Article#: C6288 Number of References: 15
Title: TRANSFORMATION OF EMBRYONIC STEM - CELLS **WITH THE HUMAN TYPE-II** COLLAGEN **GENE AND ITS EXPRESSION IN CHIMERIC MICE**
Author(s): LOVELLBADGE RH; BYGRAVE AE; BRADLEY A; BRADLEY A; ROBERTSON E; EVANS MJ; CHEAH KSE
Corporate Source: MRC,MAMMALIAN DEV UNIT/LONDON NW1 2HE//ENGLAND/; UNIV CAMBRIDGE,DEPT GENET/CAMBRIDGE CB2 2EH//ENGLAND/; UNIV HONG KONG,DEPT BIOCHEM/HONG KONG//HONG KONG/
Journal: COLD SPRING HARBOR SYMPOSIA ON QUANTITATIVE BIOLOGY, 1985, V50, P 707-711
Language: ENGLISH Document Type: ARTICLE

32/7,K/47 (Item 47 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.
08376108 PASCAL No.: 88-0376863
Differential effects of transforming growth factor- beta on the synthesis of extracellular matrix proteins by normal fetal rat clavarial bone cell populations

WRANA J L; MAENO M; HAWRYLYSHYN B; KAM-LING YAO; DOMENICUCCI C; SODEK J
MRC, fac. dentistry, group periodontal physiology, Toronto ON M5S 1A8, Canada
Journal: Journal of Cell Biology, 1988, 106 (3) 915-924
ISSN: 0021-9525 CODEN: JCLBA3 Availability: CNRS-7616
No. of Refs.: 40 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: USA
Language: ENGLISH
English Descriptors: Transforming growth factor; Extracellular matrix; Calvaria; **Fetus** ; Rat; **Cell** culture; **Collagen** ; Fibronectin; Molecular interaction; Adhesion; Enzyme; Alkaline phosphatase; Protein synthesis; Cell population; Secreted protein acidic richincysteine

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File 155:MEDLINE(R) 1951-2004/Aug W3
Set     Items   Description
S1      24323   'TISSUE ENGINEERING' OR DC='E5.200.937.788.' OR 'ORGAN CUL-
             TURE' OR 'ORGANOIDS' OR 'REGENERATIVE MEDICINE'
S2       2580   'STEM CELL FACTOR' OR DC='D24.185.348.453.800.' OR DC='D24-
             .611.350.400.442.800.' OR 'C-KIT LIGAND' OR 'MAST CELL GROWTH
             FACTOR' OR 'STEEL FACTOR'
S3       3444   'FETAL TISSUE TRANSPLANTATION' OR DC='E4.936.580.300.' OR -
             'GRAFTING, FETAL TISSUE' OR 'TRANSPLANTATION, FETAL TISSUE'
S4       1207   'TISSUE TRANSPLANTATION'
S5     278856   TISSUE()GRAFT? ? OR COLLAGEN OR ANTIBIOTIC? ? OR BONE()GRO-
             WTH()PROMOT? OR HYDROXYAPATITE OR TRICALCIUM()PHOSPHATE OR BI-
             ODEGRADAB?
S6     922878   MIX? OR COMBIN?
S7         15   S3 AND S5 AND S6
S8         74   (S3 AND S5) NOT S7
S9         68   S8/1991:2004
S10         6   S8 NOT S9
S11       265   'FETAL TISSUE TRANSPLANTATION --METHODS --MT'
S12       259   S11 NOT S7:S8
S13       235   S12/1991:2004
S14        24   S12 NOT S13
S15         0   S14 AND S5
S16        57   S5(3N)S6 AND S1:S4
S17        56   S16 NOT (S7 OR S8 OR S11)
S18        50   S17/1991:2004
S19         6   S17 NOT S18
S20      8791   (FERTILI?ED OR EMBRYON? OR JUVENILE OR YOUNG OR PLACENTAL)-
             ()(CELL? ? OR TISSUE? ? OR ORGAN? ?)
S21     85200   (FETAL OR F?ETAL)()(CELL? ? OR TISSUE? ?) OR (TISSUE? ? OR
             CELL? ? OR ORGAN? ?)(3N)(FETUS OR F?ETUS) OR STEM()CELL? ?
S22     85200   (FETAL OR FOETAL OR FAETAL)()(CELL? ? OR TISSUE? ?) OR (FE-
             TUS OR FOETUS OR FAETUS)(3N)(CELL? ? OR TISSUE? ? OR ORGAN? ?)
              OR STEM()CELL? ?
S23      1171   (S20 OR S22) (S)S5
S24       500   S23/2000:2004
S25       178   S23/1991:1995
S26       248   S23/1996:1999
S27       245   S23 NOT S24:S26
S28    559503   TRANSPLANT? OR IMPLANT? OR GRAFT?
S29        39   S27 AND S28
S30         3   S6 AND S29
S31         2   S30 NOT (S7 OR S8 OR S11 OR S16)
S32         3   S23(S)S6 AND S29
S33         0   S32 NOT S30
S34        35   S29 NOT (S7 OR S8 OR S11 OR S16 OR S30)
S35        35   Sort S34/ALL/PY,A

10/6/2
09063723   PMID: 2130634
  Electrophysiological correlates of recovery of function.
1990

 10/6/3
08810084   PMID: 1705357
```

Angiogenesis and the blood-brain barrier in solid and dissociated cell grafts within the CNS.
1990

10/7,K/4
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08810041 PMID: 2290955
Anatomical and physiological properties of the cortical and thalamic innervations of neostriatal tissue grafts .
Wilson C J; Xu Z C; Emson P C; Feler C
Department of Anatomy and Neurobiology, University of Tennessee, College of Medicine, Memphis 38163.
Progress in brain research (NETHERLANDS) 1990, 82 p417-26, ISSN 0079-6123 Journal Code: 0376441
Contract/Grant No.: NS01078; NS; NINDS; NS26473; NS; NINDS; RR00592; RR; NCRR
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19910404
Record Date Completed: 19910404
Descriptors: Brain Tissue Transplantation--pathology--PA; *Cerebral Cortex--ultrastructure--UL; *Corpus Striatum--transplantation--TR; * **Fetal Tissue Transplantation** --pathology--PA; *Thalamus--ultrastructure--UL

14/8/2
DIALOG(R)File 155:(c) format only 2004 The Dialog Corp. All rts. reserv.
09107221 PMID: 2485119
Developing retina and PNS segments for transplantation into the adult host eye: reconstruction of the mammalian visual system. 1. Methodology.
1989
Tags: Female; Male; Pregnancy; Support, Non-U.S. Gov't
Descriptors: **Fetal Tissue Transplantation** --methods--MT; *Retina --transplantation--TR; *Tibial Nerve--transplantation--TR; Animals; Axonal Transport; Axons--physiology--PH; Cerebral Cortex--physiology--PH; Rats; Rats, Inbred Strains; Retina--physiology--PH; Tibial Nerve--physiology--PH

14/8/8
DIALOG(R)File 155:(c) format only 2004 The Dialog Corp. All rts. reserv.
08840764 PMID: 2080349
Grafting of embryonic motoneurons into spinal cord and striatum of adult mice.
1990
Tags: Support, Non-U.S. Gov't
Descriptors: Corpus Striatum--surgery--SU; * **Fetal Tissue Transplantation** --methods--MT; *Graft Survival--physiology--PH; *Motor Neurons --transplantation--TR; *Nerve Regeneration--physiology--PH; *Spinal Cord --surgery--SU; Animals; Cell Differentiation; Cell Movement--physiology--PH ; Mice; Mice, Inbred C57BL; Motor Neurons--cytology--CY

14/8/18
DIALOG(R)File 155:(c) format only 2004 The Dialog Corp. All rts. reserv.
08748839 PMID: 2263290

[The action of neural transplantation on the brain of rats with a damaged temporal cortex]
Deistvie neirotransplantatsii na mozg krys s povrezhdennoi visochnoi koroi.
1990
Tags: Comparative Study; Male
Descriptors: *Fetal Tissue Transplantation--pathology--PA; *Temporal Lobe --ultrastructure--UL; Animals; Axons--ultrastructure--UL; Brain Tissue Transplantation--methods--MT; Brain Tissue Transplantation--pathology--PA; **Fetal Tissue Transplantation** --methods--MT; Graft Survival--drug effects --DE; Kainic Acid--administration and dosage--AD; Kainic Acid--toxicity --TO; Microinjections; Rats; Temporal Lobe--drug effects--DE; Temporal Lobe--embryology--EM
CAS Registry No.: 487-79-6 (Kainic Acid)

14/8/20
DIALOG(R)File 155:(c) format only 2004 The Dialog Corp. All rts. reserv.
08738002 PMID: 2257048
The experimental technology of brain transplantation: implications for rehabilitation.
1990
Tags: Human
Descriptors: Basal Ganglia Diseases--therapy--TH; *Brain Injuries --rehabilitation--RH; *Brain Ischemia--therapy--TH; *Brain Tissue Transplantation--methods--MT; * **Fetal Tissue Transplantation** --methods--MT; *Spinal Cord Injuries--therapy--TH; Animals; Brain Injuries--therapy--TH; Transplantation, Heterologous; Transplantation, Heterotopic

14/7/5
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08870021 PMID: 2088988
The long-term cultivation and cryopreservation of human fetal pancreatic tissue.
Farkas G; Lazar G; Herczegh J
Department of Surgery, Szent-Gyorgyi Medical University, Szeged, Hungary.
Hormone and metabolic research. Supplement series (GERMANY) 1990, 25 p64-8, ISSN 0170-5903 Journal Code: 0330417
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Fetal human pancreatic islets were cultured and cryopreserved for long periods (18 weeks and 6-8 months, respectively). Multiplication of the cells was observed, and later differentiation as well. The growth characteristics and insulin-like immunoreactivity were evidenced by light microscopy, immunocytochemistry, electron microscopic examinations and measurement of the total insulin content. These results indicate that the cultivation and storage of fetal islets by cryopreservation are hopeful procedures for future human islet transplantation.
Record Date Created: 19910524
Record Date Completed: 19910524

14/7/9
DIALOG(R)File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.
08840758 PMID: 2080343
Stereotactic implantation of fetal mesencephalon.
Hitchcock E R; Kenny B G; Clough C G; Hughes R C; Henderson B T; Detta A
Department of Neurosurgery, Midland Centre for Neurosurgery and Neurology, Warley, West Midlands, UK.
Stereotactic and functional neurosurgery (SWITZERLAND) 1990, 54-55 p282-9, ISSN 1011-6125 Journal Code: 8902881
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Twelve patients with advanced Parkinson's disease have been improved by transplantation of fetal mesencephalon into the caudate nucleus. No immunosuppression had been used. The human allogeneic transplantation window is wide.
Record Date Created: 19910426
Record Date Completed: 19910426

14/7/10
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08840754 PMID: 2080339
Grafts and growth factors in CNS. Basic science with clinical promise.
Olson L
Department of Histology and Neurobiology, Karolinska Institute, Stockholm, Sweden.
Stereotactic and functional neurosurgery (SWITZERLAND) 1990, 54-55 p250-67, ISSN 1011-6125 Journal Code: 8902881
Contract/Grant No.: AG04418; AG; NIA; NS 09199; NS; NINDS
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
In 1979, we presented the first evidence that **grafts** of **fetal** brain **tissue** to the adult central nervous system could counteract an experimentally induced neurological deficit. Using the unilaterally dopamine-denervated rat model of Parkinson's disease, it was first shown that fetal substantia nigra grafts were effective and, later, that adult adrenal medullary chromaffin tissue might be used as a possible substitute for fetal brain tissue. These observations led to the first clinical trials with chromaffin autografting in severe cases of Parkinson's disease, which were initiated at the Karolinska Hospital in 1982, and several years later to clinical trials with grafts of fetal dopamine neuroblasts obtained after early elective abortions. In parallel with the ongoing intense basic research aimed at optimizing grafting procedures and finding new possible clinical applications, there are now worldwide clinical trials of grafting procedures involving a large number of neurosurgical centers and a large number of patients. Here, I shall review our recent studies of grafts and growth factors as they relate to possible new therapeutic principles applicable not only to Parkinson's disease, but also to Alzheimer's senile dementia and possibly to spinal cord injury and other afflictions. Recent evidence suggests that cholinergic neurons in the brain, known to degenerate in Alzheimer's disease, depend on nerve growth factor. In one approach we have grafted genetically modified cell lines, designed to

secrete large amounts of nerve growth factor, and demonstrated that they can rescue lesioned cholinergic neurons that would otherwise die. Nerve growth factor can also serve to enhance survival of, and promote fiber formation by, chromaffin grafts in experimental parkinsonism. Interestingly, a series of other growth factors, such as IGF-1, bFGF, aFGF, BDNF, TGF's, as well as their receptors, are now being cloned and in several cases shown to have interesting temporal and regional distributions as well as effects in the central nervous system. Our own studies using intraocular grafts suggest potent effects on fetal brain tissue growth of truncated IGF-1, bFGF, and aFGF. It thus appears as if neurosurgery is on the verge of entering a new era in which repair in the adult brain and spinal cord, once thought impossible in mammals, will become possible using growth factors and grafts. (51 Refs.)
Record Date Created: 19910426
Record Date Completed: 19910426

14/7/11
DIALOG(R)File 155:MEDLINE(R)

08834019 PMID: 1963958
[Transplantation of embryonal nerve tissues in the treatment of Parkinson disease]
O transplantatsii embrional'nykh nervnykh tkanei v lechenii parkinsonizma.
Bekhtereva N P; Gilerovich E G; Gurchin F A; Lukin V A; Matveeva T S; Otellin V A
Zhurnal nevropatologii i psikhiatrii imeni S.S. Korsakova (Moscow, Russia - 1952) (USSR) 1990, 90 (11) p10-3, ISSN 0044-4588 Journal Code: 8710066
Document type: Case Reports; Journal Article ; English Abstract
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: Completed
The authors describe the results of experimental studies of **transplants** of **embryonal nervous tissues** of man in the brain of adult animals. Base the use of transplantation of the embryonal dopaminergic structures for the treatment of patients suffering from parkinsonism. Provide the first results of the treatment of 2 patients suffering from parkinsonism by means of transplanting parts of the medium cerebral vesicle of human embryos. The observation period amounts to 6 months.
Record Date Created: 19910425
Record Date Completed: 19910425

14/7/12
DIALOG(R)File 155:MEDLINE(R)

08810927 PMID: 2149795
Transplantation of the brain.
Kolarik J; Nadvornik P
Research Institute of Higher Nervous Activity, Palacky University, Olomouc, Czechoslovakia.
Acta Universitatis Palackianae Olomucensis Facultatis Medicae (CZECHOSLOVAKIA) 1990, 128 p139-67, ISSN 0301-2514 Journal Code: 0363112
Document type: Case Reports; Historical Article; Journal Article

Languages: CZECH, ENGLISH, RUSSIAN
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19910404
Record Date Completed: 19910404

14/7/13
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08810079 PMID: 2290976
Stereotactic implantation of foetal mesencephalon (STIM): the UK experience.
Hitchcock E R; Kenny B G; Clough C G; Hughes R C; Henderson B T; Detta A
Midlands Centre for Neurosurgery and Neurology, Warley, West Midlands, England.
Progress in brain research (NETHERLANDS) 1990, 82 p723-8, ISSN 0079-6123 Journal Code: 0376441
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19910404
Record Date Completed: 19910404

14/7/14
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08810077 PMID: 2290974
Practical aspects of the use of human fetal brain tissue for intracerebral grafting.
Brundin P; Bjorklund A; Lindvall O
Department of Medical Cell Research, University of Lund, Sweden.
Progress in brain research (NETHERLANDS) 1990, 82 p707-14, ISSN 0079-6123 Journal Code: 0376441
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
(37 Refs.)
Record Date Created: 19910404
Record Date Completed: 19910404

14/7/15
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08810065 PMID: 2290963
The clinical application of cell grafting techniques in patients with Parkinson's disease.
Quinn N P
University Department of Clinical Neurology, National Hospital Queen Square, London, England.
Progress in brain research (NETHERLANDS) 1990, 82 p619-25, ISSN 0079-6123 Journal Code: 0376441
Document type: Journal Article; Review; Review, Academic

Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
(38 Refs.)
Record Date Created: 19910404
Record Date Completed: 19910404

14/7/16
DIALOG(R)File 155:MEDLINE(R)

08810062 PMID: 1981281
Neural transplantation (auto-adrenal, fetal nigral and fetal adrenal) in Parkinson's disease: the Mexican experience.
Madrazo I; Franco-Bourland R; Ostrosky-Solis F; Aguilera M; Cuevas C; Alvarez F; Magallon E; Zamorano C; Morelos A
Department of Neurosurgery, Centro Medico La Raza, Mexico City, Mexico.
Progress in brain research (NETHERLANDS) 1990, 82 p593-602, ISSN 0079-6123 Journal Code: 0376441
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19910404
Record Date Completed: 19910404

14/7/19
DIALOG(R)File 155:MEDLINE(R)

08748838 PMID: 2263289
[The structural characteristics of the dendritic apparatus of transplanted neurons from the embryonic amygdala]
Osobennosti stroeniia dendritnogo apparata transplantirovannykh neironov embrional'noi mindaliny.
Lushchekina E A; Khinicheva N M; Lushchekin V S
Neirofiziologiia = Neurophysiology (USSR) 1990, 22 (5) p579-86, ISSN 0028-2561 Journal Code: 0231364
Document type: Journal Article ; English Abstract
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: Completed
Two main neuronal classes were studied in the grafts of basolateral nucleus of the rat **embryonic** amygdala stained by the Golgi method--sparsely and densely ramified **cells**. **Transplantation** resulted in the increase of dendrite length and ramification of sparsely ramified cells, in the decrease of cell body size and increase of ramification of densely ramified cells. The analysis of polar histograms of the dendritic orientation shows the selective increase of dendrite length and ramification of the both neuronal classes. The dendrites of the intact neurons of basolateral amygdala are distributed almost regularly, they do not display any dominant orientation. After transplantation the main orientation to the area of graft-host integration appears. The changes in dendrites are discussed with respect to the ability of the graft to take part in compensation of the damaged brain functions.
Record Date Created: 19910207
Record Date Completed: 19910207

14/7/23
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08692520 PMID: 2226152
[The retransplantation of embryonic nerve tissue into the mammalian brain]
Povtornaia transplantatsiia embrional'noi nervnoi tkani v golovnoi mozg mlekopitaiushchikh.
Cherkasova L V
Doklady Akademii nauk SSSR (USSR) 1990, 312 (6) p1495-6, ISSN 0002-3264 Journal Code: 7505465
Document type: Journal Article
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19901227
Record Date Completed: 19901227

14/7/24
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
08686298 PMID: 2222202
[Transplantation of human embryonal nervous tissue to the spinal cord of mature rats]
Transplantatsiia embrional'noi nervnoi tkani cheloveka v spinnoi mozg vzroslykh krys.
Gilerovich E G; Fedorova E A; Otellin V A
Arkhiv anatomii, gistologii i embriologii (USSR) May 1990, 98 (5) p22-6, ISSN 0004-1947 Journal Code: 0370603
Document type: Journal Article ; English Abstract
Languages: RUSSIAN
Main Citation Owner: NLM
Record type: Completed
Pieces of the wall obtained from the anterior cerebral bladder of human **embryos** at the age of 8-10 weeks can survive in the spinal cord of mature animals. In the **transplant**, unlike the normal embryonal histogenesis, neuroepithelial cells make groups of rosellas. The differentiation process of cells of the human nervous tissue transplant can be followed in the rat spinal cord without any immune suppression up to the end of the 2d month of development. During the 3d month the transplant neuroblasts perish as a result of the immune reaction.
Record Date Created: 19901119
Record Date Completed: 19901119

19/6/2
07133305 PMID: 2940219
The cytocompatibility of compound polyester-protein surfaces using an in vitro technique.
May 1986

19/6/5
05673994 PMID: 7025828
Evaluation of the safety of storage medium for corneal transplants.
Feb 1981

19/7/1
DIALOG(R)File 155:MEDLINE(R)

09192663 PMID: 2133542
Behavior of fetal intestinal organ culture explanted onto a collagen substratum.
Altmann G G; Quaroni A
Department of Anatomy, University of Western Ontario, London, Canada.
Development (Cambridge, England) (ENGLAND) Oct 1990, 110 (2) p353-70 , ISSN 0950-1991 Journal Code: 8701744
Contract/Grant No.: DK-32656; DK; NIDDK
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
A model of organ culture of 18 day old **fetal** rat intestine (Quaroni, 1985) was modified and characterized in the present work with the purpose of developing an in vitro model for the study of intestinal epithelial cell behaviour. Fragments of this intestine were kept in suspension culture for 7 days and then **explanted onto collagen (type I) matrix**. Within a day, the fragments became anchored to the substratum and a circular monolayer grew out to about 1 cm diameter. In the fragments, an outer layer of absorptive epithelial cells came to enclose a stroma, which was polarized into a loose (mesenchymal) and a dense portion. The dense portion contained a mixture of smooth muscle cells and primitive stem-type epithelial cells ('p-cells'). After explantation, at the contact point with the matrix, the epithelium broke up and the mesenchyme grew into the matrix and anchored the fragment. The epithelial edges now became continuous with the developing monolayer. Radioautography with tritiated thymidine indicated a constant cell renewal in epithelium and monolayer apparently from foci of p-cells, a reserve population of which was seen to be sequestered among the smooth muscle cells. Activated stem cells could differentiate into three mature epithelial phenotypes, each differentiation pathway apparently being determined by the type of underlying stroma. Immunohistochemistry using gold- and fluorescein-labeled monoclonal antibodies indicated that adult differentiation-specific markers (e.g. brush border enzymes) were present in the fragment epithelium but not in the monolayer cells. On the other hand, the monolayer cells could be induced to express some of these markers by contact with mesenchymal cells or by co-culturing with fibroblastic cell lines. Matrigel substratum **mixed** with **collagen** (type I) supported the appearance in monolayer of strands positive for amino-peptidase and lactase. The model thus appears to be suitable for the in vitro study of epithelial renewal and differentiation, and it has already provided some results in this respect.
Record Date Created: 19920320
Record Date Completed: 19920320

19/7/4
DIALOG(R)File 155:MEDLINE(R)

05855291 PMID: 6952831
Experimental induction of cementogenesis on the enamel of transplanted mouse tooth germs.
Heritier M
Archives of oral biology (ENGLAND) 1982, 27 (2) p87-97, ISSN

0003-9969 Journal Code: 0116711
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
First and second maxillary molar tooth germs with their surrounding bone were removed from 9-day-old mice, freed of the reduced enamel epithelium, re-inserted crown downwards in their bony crypts and then transplanted in the subcutaneous tissue of hosts of the same age and litter. Grafts were removed 14 days later and prepared for light and electron microscopy. In the areas where the reduced enamel epithelium was missing, a layer of cementum-like tissue was present on the enamel surface, always associated with cells showing the typical features of cementoblasts. A thin electron-lucent layer of fine fibrillar material separated the enamel surface from the new hard tissue which was composed of densely-packed **collagen mixed** with a ground substance. Where the cementum-like tissue was thick, cells were trapped in a collagenous matrix. The cementogenesis on enamel was strictly dependent on the absence of the reduced enamel epithelium. Thus, when exposed to follicular tissue, the surface of immature enamel appears to exert an influence on follicular cells and stimulate cementogenesis. This hypothesis could explain the presence of overgrowths of cementum in the cervical region of tooth crowns where the reduced enamel epithelium may be particularly vulnerable.
Record Date Created: 19820708
Record Date Completed: 19820708

19/7/6
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
02823439 PMID: 5366912
Effect of D-penicillamine on collagen biosynthesis in organ culture.
Uitto J
Biochimica et biophysica acta (NETHERLANDS) Dec 23 1969, 194 (2) p498-503, ISSN 0006-3002 Journal Code: 0217513
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19700306
Record Date Completed: 19700306

31/6/1
07098147 PMID: 3516253
Depletion of donor lymphocytes by counterflow centrifugation successfully prevents acute graft -versus-host disease in matched allogeneic marrow transplantation .
May 1986

31/7,K/2
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
06498672 PMID: 6713401 Record Identifier: 84180426
Production of skeletal muscle elements by cell lines derived from neoplastic rat mammary epithelial stem cells.
Rudland P S; Dunnington D J; Gusterson B; Monaghan P; Hughes C M

Cancer research (UNITED STATES) May 1984, 44 (5) p2089-102, ISSN 0008-5472 Journal Code: 2984705R
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NASA
Record type: Completed

Single-cell-cloned cell lines intermediate in morphology between the cuboidal epithelial and fully elongated myoepithelial-like cells have been isolated from the single-cell-cloned epithelial **stem cell** lines Rama 25 and Rama 37 originally obtained from dimethylbenz(a)anthracene-induced mammary tumors from Sprague-Dawley and Wistar-Furth rats, respectively. These are designated Rama 25-l1, Rama 25-l2, Rama 25-l4 (Sprague-Dawley) and Rama 50-55, Rama 59, and Rama 60 (Wistar-Furth), respectively. When growing as tumors in nude mice or syngeneic Wistar-Furth rats, respectively, many of the newly cloned cell lines give rise to spindle and giant, multinucleated cells which stain immunocytochemically with antisera to myoglobin and myosin and contain longitudinal fibrils, some of which contain phosphotungstic acid-hematoxylin-staining cross-striations. Ultrastructural analysis demonstrates the presence of A-, l-, and H-bands and Z-discs and the hexagonal arrangement of thick and thin filaments characteristic of skeletal muscle. Similar results are obtained with selected cloned cell lines growing on floating **collagen** gels in vitro. Thus, a developmentally committed mammary epithelial cell can give rise, under suitable conditions, to a well-differentiated mesenchymal lineage, that of skeletal muscle. It is suggested that such cells may be responsible for the generation of the well-differentiated mesenchymal elements seen in the **mixed** (epithelial and myoepithelial) tumors of glandular origin.

Record Date Created: 19840601
Record Date Completed: 19840601

...; physiology--PH; Mammary Neoplasms, Experimental--pathology--PA; Mice ; Mice, Nude; Muscle Proteins--analysis--AN; Neoplasm **Transplantation** ; Rats; Rats, Inbred Strains; **Transplantation** , Heterologous

35/6/2
02182842 PMID: 5331827
Immunologic enhancement and the effect of pregnancy on fetal tissue graft **survival.**
1966

35/6/4
04302593 PMID: 181040
Tumour rejection in rats sensitized to embryonic tissue. I. Rejection of tumour cells implanted **s.c. and detection of cytotoxic lymphoid cells.**
Jun 1976

35/6/5
04695022 PMID: 563956
Cell surface carbohydrates of preimplantation embryos as assessed by lectin binding.
1977

35/6/6
04640074 PMID: 335582
Splenic involvement in amphibian transplantation **immunity.**

Oct 1977

35/6/8
05065388 PMID: 455457
The localization and synthesis of some collagen types in developing mouse embryos.
Apr 1979

35/6/9
05814946 PMID: 7040096
Piperazinedione (NSC 135758) and total body irradiation as an ablative bone marrow transplantation **regimen in mice.**
Oct 1981

35/6/10
05568802 PMID: 7232335
Blastocyst-endometrial interactions and protein synthesis during pre-implantation **development in the pig studied in vitro.**
Apr-Jun 1981

35/6/11
06273938 PMID: 6355307
Structural integration of skin equivalents grafted **to Lewis and Sprague-Dawley rats.**
Nov 1983

35/6/12
06167622 PMID: 6345289
Studies on the in vitro microenvironment in man.
1983

35/6/13
06066763 PMID: 6826200
Characterization of a human colonic adenocarcinoma cell line, LS123.
Feb 1983

35/6/15
06818619 PMID: 3999801
Regulators of stem cell proliferation in the haemopoietic tissues of W/Wv and S1/S1d mice.
1985

35/6/16
06761120 PMID: 3979340
[Hemopoietic precursor cells during the development of carminomycin resistance]
Rodonachal'nye kletki gemopoeza pri razvitii rezistentnosti k karminomitsinu.
1985

35/6/19
07512143 PMID: 3302202
Fetal response to injury in the rabbit.
Jul 1987

35/6/20
07487959 PMID: 3110647
The effects of the age of intracerebroventricular grafts of normal preoptic area tissue upon pituitary and gonadal function in hypogonadal (HPG) mice.
Apr 1987

35/6/21
08075464 PMID: 2907137
The Claude Bernard lecture, 1987. Embryonic chimeras: a tool for studying the development of the nervous and immune systems.
Oct 22 1988

35/6/22
07972501 PMID: 3204464
Transforming growth factor beta (TGF-beta) induces fibrosis in a fetal wound model.
Jul 1988

35/6/23
07897371 PMID: 3049129
Radiosensitivity of cloned permanent murine bone marrow stromal cell lines: nonuniform effect of low dose rate.
Nov 1988

35/6/24
07893396 PMID: 3048483
Blood cell changes after radiation exposure as an indicator for hemopoietic stem cell function.
Mar 1988

35/6/25
07869904 PMID: 3412081 Record Identifier: 057136; 00190226
[Enterococcal endocarditis following legal abortion]
Enterokochendokardit efter legal abort.
Aug 24 1988

35/6/29
08379159 PMID: 2690216
Preleukaemia and myelodysplastic syndromes today.
Oct 1989

35/7,K/1
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
00601796 PMID: 13732675
Action of chorionic gonadotropin on embryonal tissue grafts]
PAPPALARDO M
Rivista di patologia e clinica (Not Available) Dec 1960, 15 p935-8, ISSN 0035-6417 Journal Code: 0404504
Document type: Journal Article
Languages: ITALIAN
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19611201

Record Date Completed: 19981101
Identifiers: GONADOTROPINS, CHORIONIC/pharmacology; * **TRANSPLANTATION** /experimental

35/7,K/7
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
04802177 PMID: 351465
Creation of a neovagina with a fetal tissue graft]
Creazione di neovagina con innesto di tessuti fetali.
Luisi M
Minerva ginecologica (ITALY) Apr 1978, 30 (4) p299-316, ISSN 0026-4784 Journal Code: 0400731
Document type: Journal Article ; English Abstract
Languages: ITALIAN
Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19780828
Record Date Completed: 19780828
Descriptors: Fetus; *Skin **Transplantation** ; *Vagina--abnormalities--AB; Adult; Follow-Up Studies; Skin--anatomy and histology--AH; **Transplantation** , Homologous; Vagina--anatomy and histology--AH

35/7,K/14
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
06464787 PMID: 6698132 Record Identifier: 84132397
Establishment of the hematopoietic microenvironment in the marrow of matrix-induced endochondral bone.
McCarthy K F; Wientroub S; Hale M; Reddi A H
Experimental hematology (UNITED STATES) Feb 1984, 12 (2) p131-8, ISSN 0301-472X Journal Code: 0402313
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NASA
Record type: Completed
Implantation of demineralized diaphyseal bone matrix (DBM) into subcutaneous sites in allogeneic Long-Evans rats results in new endochondral bone formation accompanied by hematopoietic bone marrow differentiation in the newly formed ossicles. In the present study, we investigated the relationship between the time of appearance of hematopoietic **stem cells** (CFU-S) and those of certain postulated elements of the hematopoietic microenvironment, i.e., fibroblast colony-forming cells (CFC-F), colony-stimulating factors (CSF), and **collagen** types. CFU-S were first detected at 16 days' postimplantation in the developing ossicle. Their numbers increased exponentially until day 24, decreased slightly between days 27 and 33, and then slowly increased in number again until day 36. CFC-F were present at day 10, and their numbers increased exponentially until day 15, decreased dramatically until day 24, and then remained constant till day 35. Thus, the transient growth of CFC-F preceded the appearance and growth of CFU-S in the ossicle by two or three days.
Record Date Created: 19840420
Record Date Completed: 19840420

35/7,K/17
DIALOG(R)File 155:MEDLINE(R)

07078648 PMID: 3082897
Characterization of reticulofibroblastoid colonies (CFU-RF) derived from bone marrow and long-term marrow culture monolayers.
Lim B; Izaguirre C A; Aye M T; Huebsch L; Drouin J; Richardson C; Minden M D; Messner H A
Journal of cellular physiology (UNITED STATES) Apr 1986, 127 (1) p45-54, ISSN 0021-9541 Journal Code: 0050222
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The maintenance of hemopoietic precursors in long-term liquid bone marrow cultures (LTBMC) is associated with the presence of an adherent stromal layer composed of heterogeneous cell populations. We have used a culture assay to promote the growth of one of its cellular components and characterize its properties. Freshly obtained **bone marrow cells** and cells derived from the adherent layer of LTBMC were grown in methylcellulose-clotted plasma in the presence of phytohemagglutinin-stimul ated leukocyte-conditioned medium (PHA-LCM), hydrocortisone (HC), and citrated normal human plasma. Both sources contained cells (CFU-RF) that gave rise to colonies of cells with a reticulofibroblastoid appearance. In the presence of HC, most colonies contained lipid-laden cells. Colonies could be further propagated as adherent layers when transferred into liquid cultures. These cells produced laminin, fibronectin, and collagen types I, III, IV, and V. They were negative for Von Willebrand factor VIII. The ability to synthesize laminin and collagen type IV distinguished these cells from a population of previously described bone marrow fibroblasts (CFU-F). The relationship of CFU-RF to hemopoietic precursors was investigated using patients with chronic myeloid leukemia and bone marrow **transplant** recipients. Cells within CFU-RF-derived colonies were uniformly negative for the Philadelphia chromosome, thus making it unlikely that they belonged to the malignant hemopoietic clone. CFU-RF-derived colonies in bone marrow **transplant** recipients were found to be exclusively of host origin. Both observations support the view that CFU-RF is not part of the repertoire of hemopoietic **stem cells** .
Record Date Created: 19860512
Record Date Completed: 19860512
; Antigens--analysis--AN; Bone Marrow--pathology--PA; Bone Marrow **Transplantation** ; Cells, Cultured; Clone Cells; Collagen--analysis--AN; Collagen--biosynthesis--BI; Factor VIII--analysis--AN; Factor...

35/7,K/18
DIALOG(R)File 155:MEDLINE(R)

07596222 PMID: 2890167
Engraftment of a clonal bone marrow stromal cell line in vivo stimulates hematopoietic recovery from total body irradiation.
Anklesaria P; Kase K; Glowacki J; Holland C A; Sakakeeny M A; Wright J A; FitzGerald T J; Lee C Y; Greenberger J S
Department of Radiation Oncology, University of Massachusetts Medical School, Worcester 01605.
Proceedings of the National Academy of Sciences of the United States of

America (UNITED STATES) Nov 1987, 84 (21) p7681-5, ISSN 0027-8424
Journal Code: 7505876
Contract/Grant No.: PO1HD19767; HD; NICHD; RO1CA39851; CA; NCI
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Whether **bone marrow stromal cells** of donors contribute physiologically to hematopoietic **stem cell** reconstitution after marrow **transplantation** is unknown. To determine the **transplantability** of nonhematopoietic marrow stromal cells, stable clonal stromal cell line (GB1/6) expressing the a isoenzyme of glucose-6-phosphate isomerase (Glu6PI-a, D-glucose-6-phosphate ketol-isomerase; EC 5.3.1.9) was derived from murine long-term bone marrow cultures and made resistant to neomycin analogue G418 by retroviral gene transfer. GB1/6 cells were fibronectin+, laminin+, and **collagen** -type IV+ and **collagen** type I-; these GB1/6 cells supported in vitro growth of hematopoietic **stem cells** forming colony-forming units of spleen cells (CFU-S) and of granulocytes, erythrocytes, and macrophage/megakarocytes (CFU-GEMM) in the absence of detectable growth factors interleukin 3 (multi-colony-stimulating factor), granulocyte/macrophage colony-stimulating factor, granulocyte-stimulating factor, or their poly(A)+ mRNAs. The GB1/6 cells produced macrophage colony-stimulating factor constitutively. Recipient C57BL/6J (glucose-6-phosphate isomerase b) mice that received 3-Gy total-body irradiation and 13 Gy to the right hind limb were injected i.v. with GB1/6 cells. Engrafted mice demonstrated donor-originating Glu6PI-a+ stromal cells in marrow sinuses in situ 2 mo after **transplantation** and a significantly enhanced hematopoietic recovery compared with control irradiated nontransplanted mice. Continuous (over numerous passages) marrow cultures derived from **transplanted** mice demonstrated G418-resistant, Glu6PI-a+ stromal colony-forming cells and greater cumulative production of multipotential **stem cells** of recipient origin compared with cultures established from irradiated, nontransplanted control mice. These data are evidence for physiological function in vivo of a **transplanted** bone marrow stromal cell line.

Record Date Created: 19871209
Record Date Completed: 19871209

35/7,K/26
DIALOG(R)File 155:MEDLINE(R)

07725877 PMID: 2895175

Selective cell transplantation using bioabsorbable artificial polymers as matrices.

Vacanti J P; Morse M A; Saltzman W M; Domb A J; Perez-Atayde A; Langer R
Department of Surgery, Children's Hospital, Boston, MA 02115.
Journal of pediatric surgery (UNITED STATES) Jan 1988, 23 (1 Pt 2) p3-9, ISSN 0022-3468 Journal Code: 0052631
Contract/Grant No.: 6M 26698; PHS
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

To date, selective cell **transplantation** has involved injecting cell suspensions into tissues or the vascular system. **This study describes attaching cell preparations to bioerodable artificial polymers in cell**

culture and then implanting this polymer-cell scaffold into animals. Using standard techniques of cell harvest, single cells and clusters of fetal and adult rat and mouse hepatocytes, pancreatic islet cells, and small intestinal cells have been seeded onto biodegradable polymers of polyglactin 910, polyanhydrides, and polyorthoester. Sixty-five fetuses and 14 adult animals served as donors. One hundred fifteen polymer scaffolds were **implanted** into 70 recipient animals: 66 seeded with hepatocytes; 23 with intestinal cells and clusters; and 26 with pancreatic islet preparations. The cells remained viable in culture, and in the case of fetal intestine and fetal hepatocytes, appeared to proliferate while on the polymer. After four days in culture, the cell-polymer scaffolds were **implanted** into host animals, either in the omentum, the interscapular fat pad, or the mesentery. In three cases of fetal intestinal **implantation** coupled with partial hepatectomy, successful engraftment occurred in the omentum, one forming a visible 6.0 mm cyst. Three cases of hepatocyte **implantation** , one using adult cells and two using **fetal cells** , have also engrafted, showing viability of hepatocytes, mitotic figures, and vascularization of the cell mass. To date, no pancreatic islets have survived **implantation** . This method of cell **transplantation** , which we have termed "chimeric neomorphogenesis," is an alternative to current methods and requires further study.

Record Date Created: 19880506
Record Date Completed: 19880506
Descriptors: Biocompatible Materials; *Cell **Transplantation** ; *Decanoic Acids; *Polyglactin 910; *Polymers

35/7,K/27
DIALOG(R)File 155:MEDLINE(R)

07723958 PMID: 3350965

Hematopoietic microenvironment. Origin, lineage, and transplantability **of the stromal cells in long-term bone marrow cultures from chimeric mice.**

Perkins S; Fleischman R A
Department of Internal Medicine, University of Texas Health Science Center, Dallas 75235.

Journal of clinical investigation (UNITED STATES) Apr 1988, 81 (4) p1072-80, ISSN 0021-9738 Journal Code: 7802877
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

Studies of **bone marrow transplant** patients have suggested that the stromal **cells** of the in vitro hematopoietic microenvironment are **transplantable** into conditioned recipients. Moreover, in patients with myeloproliferative disorders, all of the stromal **cells**, which include presumptive endothelial cells, appear to be derived from hematopoietic precursors. To confirm these findings, we have constructed two chimeric mouse models: (a) traditional radiation chimeras, and (b) fetal chimeras, produced by placental injection of bone marrow into genetically anemic Wx/Wv fetuses, a technique that essentially precludes engraftment of nonhematopoietic cells. Using two-color indirect immunofluorescence, the stromal cells in long-term bone marrow culture derived from these chimeras were analyzed for donor or host origin by strain-specific H-2 antigens, and for cell lineage by a variety of other specific markers. 75-95% of the stromal cells were shown to be hematopoietic cells of the

monocyte-macrophage lineage, based upon donor origin, phagocytosis, and expression of specific hematopoietic surface antigens. The remaining 5-25% of the stromal cells were exclusively host in origin. Apart from occasional fat cells, these cells uniformly expressed collagen type IV, laminin, and a surface antigen associated with endothelial cells. Since these endothelial-like cells are not **transplantable** into radiation or fetal chimeras, they are not derived from hematopoietic **stem cells** . The contrast between our findings and human studies suggests either unexpected species differences in the origin of stromal lineages or limitations in the previous methodology used to detect nonhematopoietic stromal cells.
Record Date Created: 19880512
Record Date Completed: 19880512

35/7,K/28
DIALOG(R)File 155:MEDLINE(R)

07640977 PMID: 2891657
Alteration in hematopoietic stem cell seeding and proliferation by both high and low dose rate irradiation of bone marrow stromal cells in vitro.
Greenberger J S; FitzGerald T J; Klassen V; Anklesaria P; Bushnell D; Kase K; Sakakeeny M A
Dept. of Radiation Oncology, Univ. of Massachusetts Med. Cntr., Worcester 01605.
International journal of radiation oncology, biology, physics (UNITED STATES) Jan 1988, 14 (1) p85-94, ISSN 0360-3016 Journal Code: 7603616
Contract/Grant No.: CA39851; CA; NCI; CA40818; CA; NCI; PO1-HD19767; HD; NICHD
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The mechanism of physiologic alteration by high (HDR) or low dose rate (LDR) (5 or 120 cGy/min) irradiation of plateau-phase **bone marrow stromal cell cultures** was investigated using a technique of in vitro bone marrow **transplantation**. Purified stromal cell cultures from C57BL/6J, C3H/HeJ, or (C57BL/6J X DBA2/J)F1 (B6D2F1) mouse marrow were irradiated to doses of 2.5 to 10 Gy at LDR or 10-100 Gy at HDR and were then engrafted in vitro with nonadherent hematopoietic cells from murine continuous bone marrow cultures. Parameters of engraftment quantitated included: (1) numbers of adherent proliferating hematopoietic cell colonies, "cobblestone islands" (2) cumulative production of nonadherent hematopoietic cells over 8 weeks after engraftment, (3) M-CSF, GM-CSF and multi-CSF (IL-3) dependent hematopoietic progenitor cells forming greater than or equal to 50 cell colonies in semisolid medium, (4) cumulative production of CFUs, and (5) number of adherent stromal cells positive for detectable extracellular laminin or collagen type IV (markers of endothelial cells, reticular adventitial cells, or sinus lining cells). There was a decrease in cobblestone island formation between 5 and 10 Gy and this parameter possibly increased at doses of 50 and 100 Gy. There was no difference between HDR and LDR irradiation to 10 Gy. Irradiation to doses above 10 Gy decreased support of engrafted cells forming CFU-GM and CFU-GEMM. Measures of CFUs after 10 Gy were variable but indicated a possible increase with HDR and no effect of LDR at 1 week and a decrease in both HDR and LDR groups at 3 weeks after engraftment. Thus, LDR and HDR irradiation in vitro

alter several specific parameters of marrow stromal cell support for engrafted hematopoietic **stem cells** .
Record Date Created: 19880223
Record Date Completed: 19880223
; Animals; Bone Marrow **Transplantation** ; Cell Adhesion--radiation effects--RE; Cells, Cultured; Crosses, Genetic; Dose-Response Relationship, Radiation; Hematopoietic Stem Cell **Transplantation** ; Hematopoietic Stem Cells--cytology--CY; Mice; Mice, Inbred C3H; Mice, Inbred C57BL; Mice, Inbred Strains

35/7,K/30
DIALOG(R)File 155:MEDLINE(R)
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08314120 PMID: 2478401
Isolation of simian virus 40-transformed human mammary epithelial stem cell lines that can differentiate to myoepithelial-like cells in culture and in vivo.
Rudland P S; Ollerhead G; Barraclough R
Biochemistry Department, University of Liverpool, England.
Developmental biology (UNITED STATES) Nov 1989, 136 (1) p167-80, ISSN 0012-1606 Journal Code: 0372762
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Simian Virus 40 (SV40) transformation of primary cultures of human mammary epithelial **cells** has yielded a cloned epithelial-like cell line and a representative, single-cell subclone. Although apparently homogeneous, both cloned cell lines can also yield small numbers of three other cell types. The more-elongated cell type can be obtained directly by replating cells from the medium of the epithelial-like cell cultures or by picking and culturing single cells to form representative lines. Immunofluorescent and immunocytochemical analysis of these cell lines growing on plastic or as tumor-nodules in nude mice for epithelial membrane antigens, various cytokeratins, various actins, laminin, Type IV collagen, the common acute lymphoblastic leukemia antigen (CALLA), and a 135-kDa glycoprotein confirm the epithelial nature of the epithelial-like cells and suggest a myoepithelial origin for the more-elongated cell type. Ultrastructural analysis largely confirms the results, although the myofilamental bundles can be scanty in the growing myoepithelial-like cells. The other two cell types are possibly related to the keratinizing and casein-secreting cells seen in the epithelial tumor-nodules before and after mating the mice, respectively. The myoepithelial-like cells produce 5- to 17-fold more laminin, Type IV collagen, CALLA, and the 135-kDa glycoprotein than the epithelial cells, and all of these antigens are preferentially found on myoepithelial cells in vivo. It is suggested that the SV40-transformed epithelial cell is an immortalized form of human mammary **stem cell** which can differentiate in culture and in vivo to myoepithelial-like cells.
Record Date Created: 19891129
Record Date Completed: 19891129
...; Immunohistochemistry; Keratin--analysis--AN; Laminin--analysis--AN; Membrane Glycoproteins--analysis--AN; Mice; Mice, Nude; Neoplasm **Transplantation** ; Neoplasms, Experimental--pathology--PA; Neprilysin

35/7,K/33

DIALOG(R)File 155:MEDLINE(R)

08375507 PMID: 2294329 Record Identifier: 29650

Medical applications of fetal tissue transplantation . **Council on Scientific Affairs and Council on Ethical and Judicial Affairs.**

JAMA - the journal of the American Medical Association (UNITED STATES) Jan 26 1990, 263 (4) p565-70, ISSN 0098-7484 Journal Code: 7501160

Comment in JAMA. 1990 Jul 4;264(1) 34; Comment in PMID 2355427 Appendix: Current opinions of the Council on Ethical and Judicial Affairs of the American Medical Association, 1990 -- Clinical investigation: replacement of vital human organs (2.07) [and] Organ transplantation guidelines (2.15). ; KIE BoB Subject Heading: embryo and fetal research; KIE BoB Subject Heading: fetuses; KIE BoB Subject Heading: organ and tissue donation; KIE BoB Subject Heading: organ and tissue transplantation

Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: KIE
Abstract Source: KIE
Record type: Completed

Fetal tissue transplantation has been attempted for a limited number of clinical disorders, including Parkinson's disease, diabetes, immunodeficiency disorders, and several metabolic disorders. **Fetal tissue** has intrinsic properties--ability to differentiate into multiple cell types, growth and proliferative ability, growth factor production, and reduced antigenicity--that make it attractive for **transplantation** research. At this time the results from **fetal tissue grafts** for Parkinson's disease and diabetes have not demonstrated significant long-term clinical benefit to patients with these disorders. Further research will be necessary to determine the potential value of **fetal tissue transplantation** . For these clinical investigations to proceed, specific ethical guidelines are needed to ensure that **fetal tissue** derived from elective abortions is used in a morally acceptable manner. These guidelines should separate, to the greatest extent possible, the decision by a woman to have an abortion from her consent to donate the postmortem tissue for **transplantation** purposes. Such ethical guidelines are offered in this report.

This report by the American Medical Association's Council on Scientific Affairs and Council on Ethical and Judicial Affairs reviews the data on **fetal tissue transplantation** in animals and in specific clinical disorders such as diabetes and Parkinson's disease, surveys the legal and ethical issues surrounding fetal tissue **transplants** , and provides ethical guidelines for the use of fetal tissue for **transplantation** . The report concludes that further research is necessary to determine the value of fetal tissue **transplantation** , and that ethical guidelines should separate as much as possible a woman's decision to abort from her decision to donate fetal tissue for **transplantation** .

Record Date Created: 19900207
Record Date Completed: 19900207

Descriptors: Aborted Fetus; *Ethics, Medical; *Fetal Research; *Fetus; *Risk Assessment; * **Transplantation** , Homologous...; Human Body; Immunologic Deficiency Syndromes--surgery--SU; Organ Procurement; Parkinson Disease--surgery--SU; Pregnant Women; **Transplantation** , Homologous--trends --TD; United States

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File 149:TGG Health&Wellness DB(SM) 1976-2004/Jul W4
File  16:Gale Group PROMT(R) 1990-2004/Aug 16
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2004/Aug 16
File 636:Gale Group Newsletter DB(TM) 1987-2004/Aug 16
File 441:ESPICOM Pharm&Med DEVICE NEWS 2004/Aug W2
File 370:Science 1996-1999/Jul W3
File 369:New Scientist 1994-2004/Aug W1
Set     Items   Description
S1      23635   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
             STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
             OR FOETUS OR FAETUS)
S2     178810   TISSUE
S3     136621   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4        627   TISSUE()GRAFT? ?
S5     129881   IMPLANT? OR GRAFT?
S6    3358004   MIX? OR COMBIN?
S7         13   S1(10N)S3:S4(10N)S6
S8          7   RD (unique items) [too recent]
S9         92   S1(S)S3:S4(S)S5
S10        88   S9 NOT S7
S11        61   RD (unique items)
S12        16   S11/1991:1995
S13        25   S11/1996:2000
S14        12   S11/2001:2004
S15         8   S11 NOT S12:S14
S16       212   S2(10N)S3(10N)S6 NOT (S7 OR S9)
S17        37   S16/1991:1995
S18        85   S16/1996:2000
S19        66   S16/2001:2004
S20        24   S16 NOT S17:S19
S21        24   RD (unique items)
S22        24   Sort S21/ALL/PD,A
S23        44   S1(S)S3(S)S5
S24         0   S23 NOT (S7 OR S9 OR S16)

15/3,AB,K/3     (Item 3 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2004 The Gale Group. All rts. reserv.
01196171     SUPPLIER NUMBER: 08844865    (USE FORMAT 7 OR 9 FOR FULL TEXT)
Bone marrow transplantation: Part 1 - allogeneic.
Chao, Nelson J.; Blume, Karl G.
The Western Journal of Medicine, v151, n6, p638(6)
Dec, 1989
PUBLICATION FORMAT: Magazine/Journal   ISSN: 0093-0415  LANGUAGE: English
RECORD TYPE: Fulltext; Abstract  TARGET AUDIENCE: Professional
WORD COUNT:   6648    LINE COUNT:  00581
ABSTRACT:  Allogeneic bone marrow transplantation is the transfer of bone
marrow from a compatible donor to a recipient, who are not identical twins.
It can be used to successfully treat cancers of the bone marrow, blood
cells and lymph tissue. The bone marrow of the donor and recipient must be
compatible for successful bone marrow transplantation. Specialized antigens
produced in the body, the major histocompatibility complex, must be matched
before transplantation. The bone marrow of the recipient is removed
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(myeloablation) and the immune system is suppressed with chemotherapeutic drugs and radiation. After bone marrow is removed from the donor, it is infused into the recipient intravenously. **Stem cells**, immature bone marrow cells that later develop into mature blood cells, migrate throughout the body to the bone marrow as well as to other organs. The newly formed cells are found in the circulating blood about three weeks after transplantation. Red cells and platelets are given by transfusion to prevent bleeding complications due to bacterial and fungal infections. **Antibiotics** , antifungal agents and gut decontaminants are administered to the recipient to prevent the overgrowth of bacteria and fungi in the gastrointestinal tract. Prednisone, cyclosporin and methotrexate sodium may prevent **graft** -versus-host disease, a reaction developing when the immune system of the transplant recipient is not suppressed adequately. Cytomegalovirus infection, a herpes-type virus, is often transmitted during transplantation and can cause a potentially fatal pneumonia. Bone marrow transplantation is often used to treat acute lymphoblastic leukemia, chronic myelogenous leukemia, severe aplastic anemia and some other noncancerous disorders. In most cases complete disease remission is possible. (Consumer Summary produced by Reliance Medical Information, Inc.)
AUTHOR ABSTRACT: Major progress in experimental and clinical research has made allogeneic bone marrow transplantation a highly effective therapy for a variety of malignant and nonmalignant diseases. Allogeneic bone marrow transplantation from histocompatible donors is now the therapy of choice for some of these disorders. We review in part / the history, technical approach, complications, and the results achievable with this therapeutic approach. Further experimentation and future goals are also discussed.

15/3,AB,K/4 (Item 4 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2004 The Gale Group. All rts. reserv.
01187130 SUPPLIER NUMBER: 07791561 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Look for expanding markets in Parkinson's disease therapy. (pharmaceutical development and marketing)
Ratafia, Manny
MM&M Medical Marketing & Media, v24, n7, p46(4)
July, 1989
PUBLICATION FORMAT: Magazine/Journal LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Trade
WORD COUNT: 1690 LINE COUNT: 00162
... in the United States, England, Sweden, Norway, and China.
With the continuing development of the **tissue graft** technique, it has become clear that the transplanted cells do not grow easily in the...
...to the use of fetal adrenal cells instead of the patient's own adrenal cells. **Fetal tissue** grows faster and adapts better to the adult brain than does adrenal tissue removed from the transplant patient himself. Rejection of the transplanted **fetal tissue** is therefore less likely.
The ability to use **fetal tissue** for transplants into the brains...

15/3,AB,K/5 (Item 5 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)
(c) 2004 The Gale Group. All rts. reserv.
01150707 SUPPLIER NUMBER: 06875120 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Alzheimer's, aging and acetylcholine.
Weiss, Rick
Science News, v134, n22, p350(1)

Nov 26, 1988
PUBLICATION FORMAT: Magazine/Journal ISSN: 0036-8423 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Academic; Consumer
WORD COUNT: 521 LINE COUNT: 00051
... to be transplanted into adult rats' brains, they enhanced the survival and growth of the **fetal tissue graft** .
Beyond the possibility of rescuing basal forebrains in Alzheimer's patients, other potential applications of...

15/3,AB,K/6 (Item 6 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01148827 SUPPLIER NUMBER: 06698154 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The SCID-hu mouse: murine model for the analysis of human hematolymphoid differentiation and function. (severe combined immunodeficiency)
McCune, J.M.; Namikawa, R.; Kaneshima, H.; Shultz, L.D.; Lieberman, M.; Weissman, I.L.
Science, v241, n4873, p1632(8)
Sept 23, 1988
PUBLICATION FORMAT: Magazine/Journal ISSN: 0036-8075 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Academic
WORD COUNT: 3667 LINE COUNT: 00373
... not require preparative irradiation. Breeding colonies are easily maintained with **antibiotic** (TMS) prophylaxis. Xenografts are **implanted** without rejection. Second, the use of human **fetal tissue** obviates the need for T cell depletion. The human T cell progenitor may differentiate to...

15/3,AB,K/7 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)

02054464
Can fetal cells cure diabetes?
Bio/Technology November, 1988 p. 1265-66
ISSN: 0733-222X
Hana Biologics (Alameda, CA) has transplanted human **fetal** pancreatic pre-islet **cells** in 25 diabetic patients with some success. Although it is still unknown whether the transplanted cells will cure diabetes, none of the patients had adverse reactions to the pancreatic islet **grafts**. All of the patients in the study had required kidney transplants. Some of them received pancreatic islet **grafts** at the same time as the kidney transplants and the others received the **grafts** 6 mos later. There were no control subjects (ie patients who received kidney transplants only). Although the results of the Phase I trial showed that the islet cell transplants were safe, all of the patients remained insulin-dependent after the islet grafts. However, 9 patients required less insulin than they had needed previously, an encouraging finding. Nevertheless, 14 of the 16 remaining patients needed 100% or more insulin than they had before the operation, possibly as a result of the kidney transplant. The results are preliminary, so that no conclusions can be drawn other than that the islet graft procedure is safe.
Researchers at the Center for Childhood Diabetes studied a group of 24 diabetics, all of whom received kidney transplants. Eight of the transplant recipients received pancreatic islet **grafts** of 1-donor equivalent of **fetal tisse**, 8 got 2-4 donor equivalents of **fetal tissue** and 8 received no **fetal tissue** . **Graft** biopsies revealed that the **fetal tissue**

grew, but did not form islets before 3 mo elapsed. Five of the 8 patients who received 2-4 donor equivalents of tissue showed a significant reduction in their insulin requirements (at least 30%).

15/3,AB,K/8 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
03941489 SUPPLIER NUMBER: 07575665 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Neurosurgeons assess who's, what's, when's, where's, how's of brain grafts.
Merz, Beverly
JAMA, The Journal of the American Medical Association, v261, n17, p2473(2)
May 5, 1989
ISSN: 0098-7484 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1082 LINE COUNT: 00086
... year, and evaluate the results before proceeding with another series. A third is to perform **fetal tissue grafts** only, an approach that, at least in this country, will be limited to privately funded...

22/8/10 (Item 10 from file: 160)
DIALOG(R)File 160:(c) 1999 The Gale Group. All rts. reserv.
01604293
A joint venture for wound treating compounds.
April 15, 1987
COMPANY:
*Hercules DUNS: 00-131-5647 TICKER: HPC (NYSE) CUSIP: 427056
Collagen TICKER: CGEN (NYSE) CUSIP: 194194
PRODUCT: *Surgical Dressings NEC (3842129)
EVENT: *Product Design & Development (33)
COUNTRY: *United States (1USA)

22/8/19 (Item 19 from file: 149)
DIALOG(R)File 149:(c) 2004 The Gale Group. All rts. reserv.
01180191 SUPPLIER NUMBER: 08894477
Clinical management of HIV-related periodontitis: report of case. (human immunodeficiency virus) (HIV: Beyond Infection Control)
1989
SPECIAL FEATURES: illustration; photograph
DESCRIPTORS: Gum diseases--Care and treatment; Periodontal disease--Care and treatment; Periodontal disease--Case studies; AIDS virus carriers--Health aspects; AIDS (Disease)--Complications

22/8/20 (Item 20 from file: 16)
DIALOG(R)File 16:(c) 2004 The Gale Group. All rts. reserv.
01131875 Supplier Number: 41279556 (USE FORMAT 7 FOR FULLTEXT)
New Agents Available to Assist Postoperative Wound Healing
April 15, 1990
Word Count: 593
PUBLISHER NAME: Advanstar Communications, Inc.
EVENT NAMES: *330 (Product information)
GEOGRAPHIC NAMES: *1USA (United States)
PRODUCT NAMES: *2834000 (Pharmaceutical Preparations)
INDUSTRY NAMES: BUSN (Any type of business); HLTH (Healthcare - Medical and Health)
NAICS CODES: 325412 (Pharmaceutical Preparation Manufacturing)
SPECIAL FEATURES: LOB

22/8/21 (Item 21 from file: 149)
DIALOG(R)File 149:(c) 2004 The Gale Group. All rts. reserv.
01226967 SUPPLIER NUMBER: 09377231
In vitro identification of a subpopulation of fibroblasts that produces high levels of collagen in scleroderma patients.
1990
SPECIAL FEATURES: illustration; table; graph
DESCRIPTORS: Collagen--Research; Scleroderma (Disease)--Research; Collagen diseases--Research; Tissue culture--Usage; Scleroderma (Disease)--Causes of

22/8/24 (Item 24 from file: 149)
DIALOG(R)File 149:(c) 2004 The Gale Group. All rts. reserv.
01252883 SUPPLIER NUMBER: 09325716 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Subscapular elastofibroma in a young pitcher: a case report.
1990
WORD COUNT: 1340 LINE COUNT: 00140
SPECIAL FEATURES: illustration; photograph
DESCRIPTORS: Connective tissues--Wounds and injuries; Pitchers (Baseball)--Wounds and injuries; Fibromas--Case studies

22/7/1 (Item 1 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.
00593200
Lab-grown skin based on a patient's own skin cells is soon to be tested by E Bell on patients at Beth Israel Hospital (Boston, Mass).
Technology Review October, 1980 p. 86
The new material is formed when a **mixture** of **connective tissue** and **collagen cells** is **combined in a 'cocktail' with several other ingredients.** To this matrix are then added cells from the outer layer of the patient's skin, and the whole arranges itself into several levels of cells. The skin building technique could produce enough skin to cover a patient's full body in perhaps 1 mo. Bell is optimistic for its use on burn victims; because the 'artificial skin' contains cells from the patient, rejection is unlikely.

22/7/2 (Item 2 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
(c) 1999 The Gale Group. All rts. reserv.
00650818
MIT cell biologist E Bell and colleagues have grown skinlike tissue made from a small sample of donor cells in the lab--a process which, if proved clinicaly sound, may someday all but eliminate scarring.
Technology Review June, 1981 p. 79,801
Bell's method consists of 2 basic steps, one for each of the skin's layers--the epidermis and the dermis. Fibroblasts (connective **tissue**) from the patient or test animal are **combined** with **collagen** (a protein found in skin, tendon, and bone) in a nutrient medium. There they form a gelatin-like lattice that condenses to a fraction of its original volume after several days, bringing the **collagen** fibers very close together and forming a strong, flexible sheet of **tissue** that takes the shape of the container in which it was cast. This substance becomes the dermal equivalent. In the 2nd step, a few epidermal cells are taken from the uppermost layers of the patient's healthy skin, separated from one another

with enzymes, and finally sprinkled over the dermal equivalent. There they proliferate, forming first islands and then a sheet of cells. This 2-layered 'skin' can then be grafted to the damaged area. There is no limit to the size of the skin that can be produced. Tests with rats show that the skin becomes infused with normal blood vessels only 3 d after the grafting and that the cells within the graft are viable for as long as a year.

22/7/3 (Item 3 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)

01001742
Allografted cells become thyroid gland equivalents.
Medical World News February 27, 1984 p. 71

Thyroid cells grafted into rats develop into functioning thyroid gland equivalents, according to E Bell of MIT. The macrophages that normally cause **graft** rejection can be eliminated through long periods of **tissue** culture. When the immunologically neutral **cell-fibroblast- collagen mixture** is implanted in a lab animal, it quickly becomes vascularized, and the thryoid cells eventually organize into large follicles that synthesize thyroglobulin.

22/7/5 (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB

02341048 SUPPLIER NUMBER: 03611017 (THIS IS THE FULL TEXT)
Zimmer Inc. and Collagen Corp. agree to develop and distribute collagen-based products.
PR Newswire, NY9
Jan 22, 1985
TEXT:

NEW YORK, Jan. 22 /PRNewswire/ -- Zimmer Inc., a subsidiary of Bristol-Myers Co., and Collagen Corp. today announced the signing of a collaborative agreement for the development and distribution of collagen- and biologically-based products for orthopedic applications.

The collaboration contemplated in the agreement **combines Collagen** 's leadership position in biological approaches to **tissue** repair with Zimmer's leadership position in orthopedics," said Howard D. Palefsky, president and chief executive officer of **Collagen** Corp.

The development program will focus initially on collagen- and biologically-based products which encourage or cause bone repair. Potential applications of such products include biological materials which will encourage bone growth, orthopedic implant fixation, spinal fusion, and the healing of non-union fractures. Additional approaches may include the application of Collagen's technology to the repair of tendons and ligaments and other tissue.

"The development program will augment Zimmer's activites in the human health care field, where it is a leader in the development and marketing of products for orthopedic application," said Thomas Hughes, president of Zimmer. Collagen is currently conducting clinical studies of biological materials in the restoration of bone tissue lost through periodontal disease, and animal studies defining applications in oral, reconstructive, and orthopedic surgery.

The agreement involves payments to Collagen for distribution rights to products, joint funding of development programs, and the manufacture of development products by Collagen for marketing by Ziimmer. Additional terms

of the agreement were not disclosed.

Collagen Corp., based in Palo Alto, Calif., is engaged in the deveopment, production and marketing of collagen-based biomedical products suitable for replacing or repairing lost or damaged human tissue. These products are derived from **animal-source collagen**, purified and processed by the company's patented and proprietary methods. Presently, the company's products are marketed directly to plastic surgeons, dermatologists, and head and neck specialists.

Zimmer, based in Warsaw, Ind., is a leader in the development, manufacturing and marketing of orthopedic, surgical, patent care, and hospital products worldwide.

/CONTACT: Lorna R. Corbett of Bristol-Myers, 212-546-4335 or William W. Jaeger of Collagen, 415-836-0200/

22/7/7 (Item 7 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)

01661976
Collagen - Product Specifications.
ANNUAL REPORT 1986 p. 01

In essence, inductive **implants** mimic the body's natural repair processes, actually regenerating tissue. This is possible because the **implants** not only provide a matrix to augment lost **tissue** but also act as a delivery system for cell growth factors-proteins that direct cell activity. Initially these growth factors will be **mixtures** developed and refined by **Collagen** scientists from **tissue** extracts. Our intent is to use processed **tissue** extracts in our first inductive **implants** for wound repair and bone regeneration, while continuing research aimed at isolating and identifying pure growth factors for inclusion in subsequent products. This is a unique development approach, and one which should minimize technical risks as well as increase our prospects for early market success. Although products utilizing pure **growth factors** await additional technological breakthroughs, products utilizing **tissue** extracts should soon move forward into clinical testing. Market prospects for these products are potentially significant. Over 8 million factures occur each year in the U.S., and about a fourth of these require surgery that could benefit from inductive implants. Similarly, in excess of 1.5 million cases of dermal ulcers ("bedsores") occur each year in the U.S., particularly among elderly patients with limited mobility, and current treatments do not significantly improve healing. The potential markets for these two areas of tissue repair, albeit several years out, may each be as large as several hundred million dollars a year.

22/7/9 (Item 9 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)

01519833
Koken produces skin restorer from cattle.
JAPAN ECONOMIC JOURNAL December 6, 1986 p. 22

Koken's (Japan) new intracutaneous agent for skin restoration includes **bovine collagen** treated with pepsin to remove its antigenicity against the human body. The **collagen** is diluted with a **combination** of distilled water and phosphatic buffer solution. The agent helps regenerate injured **tissue** , and is intended mainly for plastic surgery patients. Koken hopes

to sell 60,000 cartridges of the product in Japan and Europe during the 1st year. The company is a producer of medical equipment.

22/7/17 (Item 17 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)

02146785
Grown skin approaches market
Chemical Week March 8, 1989 p. 16
ISSN: 0009-272X

Organogenesis is developing a version of human skin and other **tissue** equivalents. The material could be used for testing cosmetics, drugs, soaps, etc, for skin irritation. The tissue is cultured in a **mixture** of **collagen**, nutrients and matrix materials. Testskin sales might reach $100-200 mil. The skin might also be used someday in skin grafts.

22/7/8 (Item 8 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01099202 SUPPLIER NUMBER: 04106926 (USE FORMAT 7 OR 9 FOR FULL TEXT)
A blood vessel model constructed from collagen and cultured vascular cells.
Weinberg, Crispin B.; Bell, Eugene
Science, v231, p397(4)
Jan 24, 1986
TEXT:

A MODEL OF A BLOOD VESSEL THAT reproduces in vitro many of the physical and biological characteristics of a mammalian artery would be useful for the study of vascular cell biology, physiology, and pathology. Such a model might also be used as a living vascular prosthesis to replace or bypass small caliber arteries (<6 mm inside diameter) for which synthetic and processed biological grafts have not been entirely successful (1). Vascular cells have been extensively studied in tissue culture (2). Some aspects of the vascular wall have been replicated in vitro when endothelial cells were grown, not on plastic substrates, but in more physiological environments--on extracellular matrix materials, on layers of smooth muscle cells, under flow, or in a mock circulatory loop (3). Combining these approaches might result in the ideal blood vessel model, a multilayered tube capable of withstanding physiological pressures, allowing access to luminal and abluminal fluid compartments, and able to be incorporated into a mock circulatory loop. The layers corresponding to the intima, media, and adventitia would consist of a confluent monolayer of endothelial cells lining the lumen, a middle layer with a high density of smooth muscle cells and matrix materials, and an outer layer with adventitial fibroblasts and matrix materials.

We have developed a blood vessel model that meets these criteria. The construction of the model is based on the observations that **fibroblasts** can contract a hydrated **collagen** gel by a factor of 10 to 20 to produce a tough tissue-like lattice and that such a lattice is a suitable substrate for **epithelial cells** (4). In this report, we describe the construction of our model, demonstrate that the layer of endothelial cells functions much like the endothelium of a normal blood vessel, and examine the effects of various parameters on the strength of the model. A preliminary report of this model has been presented (5).

Bovine aortic endothelial cells, smooth muscle cells, and adventitial fibroblasts were isolated and cultured by standard methods (2). The middle

layer of the blood vessel model, corresponding to the media of an artery, was prepared by **casting culture medium, collagen, and smooth muscle cells together** in an annular mold (4, 6). The mixture jelled after a few minutes at 37[deg.]C and contracted within a few days to produce a tubular lattice around the central mandrel. After 1 week, an open Dacron mesh sleeve was slipped over the lattice to provide additional mechanical support. The outer layer, corresponding to the adventitia, was cast around the first lattice with adventitial fibroblasts rather than smooth muscle cells. Two weeks later, when the outer layer was fully contracted, the tube was carefully slipped off the mandrel with jeweler's forceps and either used for mechanical testing or lined with endothelial cells. For the latter, the model was cannulated, a suspension of endothelial cells was injected into the lumen, and the vessel was rotated around the longitudinal axis at 1 rev/min for 1 week to distribute endothelial cells uniformly on the luminal surface.

The model grossly resembled a muscular artery, except for the Dacron mesh (Fig. 1A). Electron microscopy showed that the smooth muscle cells are well-differentiated bipolar cells containing bundles of filaments with dense bodies (Fig. 1B). They frequently appeared to be secreting **collagen** into the extracellular space, thus contributing to the matrix (7). The endothelial cells formed a monolayer of flattened cells with intercellular junctions, numerous vesicles, occasional Weibel-Palade bodies, and patches of basement membrane by 1 week (Fig. 1C). Scanning electron microscopy showed that virtually the entire luminal surface was covered by endothelial cells. Histological measurements demonstrated that endothelial cells covered at least 92.1 [plus-or-minus] 2.5 percent [mean [plus-or-minus] standard error of the mean (SEM), n = 3] of the surface. This value is a lower limit for coverage since some of the endothelial cells were lost during processing for histology. The distribution of cells in the inner layers of the model was examined by light microscopy (Fig. 2A, inset).

The endothelial lining of the blood vessel model functioned like a normal endothelium in several respects. It produced von Willebrand factor (Fig. 2A), a widely used marker for vascular endothelium (8), and it formed a permeability barrier for large molecules such as albumin (Fig. 2B). Endothelial cells release prostacyclin, which is a potent inhibitor of platelet aggregation and is believed to prevent thrombosis in vivo (9). Prostacyclin production was measured by radioimmunoassay of 6-keto-prostaglandin F.sub.1[alpha]., the stable metabolite of prostacyclin, after the model was stimulated with 20 [mu]M arachidonic acid for 2 minutes (10). The endothelialized model released prostacyclin at a rate of 3.4 [plus-or-minus] 1.2 ng X cm.sup.-2 X min.sup.-1., whereas the model without an endothelial lining released very little prostacyclin (0.4 ng X cm.sup.-2 X min.sup.-1.). The rate for the endothelialized model is comparable to rates calculated from published data (10) for endothelial cells grown on plastic and for normal rabbit aorta (4.8 [plus-or-minus] 0.9 and 8.4 [plus-or-minus] 2.2 ng X cm.sup.-2 X min.sup.-1., respectively).

The ability of the blood vessel model to withstand intraluminal pressure depended on several factors including the mesh, collagen concentration, initial cell density, and time elapsed after casting. The role of these factors was assessed by measuring the burst strengths of models made by varying these parameters from the standard protocol (6). A model made without the mesh was so highly distensible that it dilated and ruptured with a longitudinal tear (1 to 2 cm long) at very low pressures (<10 mmHg). The standard model made with one mesh, while still quite compliant, had a burst strength of 40 to 70 mmHg and typically failed by

delaminating and tearing. A model constructed with three layers of collagen lattice alternating with two meshes had a burst strength of 120 to 180 mmHg and usually failed by developing a pinhole leak. The burst strength of the model was proportional to the logarithm of the collagen concentration (Fig. 3A). Over a wide range of initial cell densities (2 X 10.sup.4 to 2 X 10.sup.5 cells per milliliter in the casting mixture) there was no significant variation in burst strength. At much lower cell densities the lattice contracted poorly (4) and was too flimsy to be tested. At much higher cell densities the lattice contracted so tightly around the mandrel that it could withstand only slight dilation and failed at 10 to 30 mmHg. A blood vessel model attained its maximal burst strength 3 to 6 weeks after casting (Fig. 3B). The increase in strength with time is probably due to cross-linking of the collagen. The decrease in strength after long times may be caused by collagenase secreted by the smooth muscle cells and fibroblasts in the lattices (11). To maximize the burst strength, we optimized the above parameters (12) and produced models with a burst strength of 323 [plus-or-minus] 31 mmHg (mean [plus-or-minus] SEM, n = 5).

Thus, our model meets many of the physiological and physical criteria for a blood vessel model; however, there are substantial differences between the model and normal arteries in addition to the requirement for the Dacron mesh. A major difference is that we are unable to include elastin, the principal arterial connective tissue protein besides collagen, in the matrix mixture, although small amounts of elastin may be synthesized by the smooth muscle cells after long periods in culture. A significant structural difference is that the smooth muscle cells and collagen fibers have a largely longitudinal orientation, because the contraction of the lattice layers around the mandrel is primarily radial rather than in the alternating left- and right-handed spirals of blood vessels. This may explain why a model that was not supported by a mesh failed by splitting lengthwise. A third difference is that the densities of smooth muscle cells and collagen in the model are one-eighth to one-fourth those in normal blood vessels.

We have demonstrated that our model reproduces in vitro many of the characteristics of a mammalian muscular artery. The model is appropriate for studying the interactions of vascular cells with each other, with components of the extracellular matrix, and with rheological forces, and for studying transport across the endothelium. It may be possible to use the model to replicate in vitro aspects of atherogenesis, tumor invasion, and other pathological processes. **If the model is sufficiently durable after implantation in animals**, and the immunological barrier to allografts can be overcome, as has been possible for some cell types (13), then models constructed with human cells might serve as living vascular prostheses for small-caliber arteries. Our blood vessel model is attractive for this application since it is lined with a functional endothelium and since it could heal at an anastomosis to become truly integrated with the host's vasculature.

CAPTIONS: Diffusion of albumin across the vessel model wall. (graph); Burst strength of the blood vessel model. (graph)

```
     (FILE 'HOME' ENTERED AT 14:38:37 ON 16 AUG 2004)
     FILE 'REGISTRY' ENTERED AT 14:38:54 ON 16 AUG 2004
               E ANTIBIOTIC
               E ANTIBIOTIC/CN
               E ANTIBIOTICS/CN
               E COLLAGEN/CN
     FILE 'HCAPLUS' ENTERED AT 14:39:34 ON 16 AUG 2004
     FILE 'REGISTRY' ENTERED AT 14:40:02 ON 16 AUG 2004
               E HYDROXYAPATITE/CN
L1             1 S E3
               E TRICALCIUM PHOSPHATE/CN
L2             1 S E3
     FILE 'HCAPLUS' ENTERED AT 14:40:22 ON 16 AUG 2004
L3         19507 S L1 OR L2
L4        265711 S COLLAGEN OR ANTIBIOTIC# OR BIODEGRAD? OR
BONE()GROWTH(2A)PROM
L5         34450 S (FETAL OR FOETAL OR FAETAL)()(CELL OR CELLS OR TISSUE#) OR
ST
L6        316067 S IMPLANT? OR GRAFT### OR TRANSPLANT?
L7           128 S (L3 OR L4)(5A)L5
L8        102477 S L6/TI
L9            13 S L7 AND L8 [too recent]
L10         1135 S (L3 OR L4) AND (L5 OR TISSUE) AND L8
L11          148 S (L3 OR L4)(3A)(L5 OR TISSUE) AND L8
L12      3342991 S COMBIN? OR MIX###
L13           23 S L12(3A)(L3 OR L4)(3A)(L5 OR TISSUE)
L14            6 S L6 AND L13
L15            6 S L14 NOT L9 [too recent]
L16           21 S L11 AND L12
L17           16 S L16 NOT (L9 OR L14)
     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 14:50:06 ON 16 AUG 2004
L18       874723 S L3 OR L4
L19      2778725 S L5 OR TISSUE
L20      1393009 S L6
L21          574 S L18 (5A)L19 AND L20/TI
L22       196073 S L5
L23           25 S L18 (5A)L22 AND L20/TI
L24           13 DUPLICATE REMOVE L23 (12 DUPLICATES REMOVED) [too recent]
L25           18 S L12(10A)L18(10A)L19 AND L20/TI
L26           17 S L25 NOT (L9 OR L14 OR L23)
L27           11 DUPLICATE REMOVE L26 (6 DUPLICATES REMOVED)

L17  ANSWER 12 OF 16  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         1990:62686  HCAPLUS
DOCUMENT NUMBER:          112:62686
TITLE:                    Polypeptides with type IV collagen activity for
                          coating prosthetic   ***implants***   , bandages and
                          cell culture substrates
INVENTOR(S):              Tsilibary, Effie C.; Furcht, Leo T.
PATENT ASSIGNEE(S):       University of Minnesota, USA
SOURCE:                   PCT Int. Appl., 41 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
```

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8903392	A1	19890420	WO 1988-US3023	19880830
W: JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
US 4876332	A	19891024	US 1987-106858	19871008
EP 380546	A1	19900808	EP 1988-908581	19880830
EP 380546	B1	19930414		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 03500492	T2	19910207	JP 1988-507927	19880830
AT 88191	E	19930415	AT 1988-908581	19880830
US 5059425	A	19911022	US 1991-648190	19910131
US 5242826	A	19930907	US 1991-705086	19910524
PRIORITY APPLN. INFO.:			US 1987-106858	19871008
			EP 1988-908581	19880830
			WO 1988-US3023	19880830
			US 1989-397012	19890822
			US 1991-648190	19910131

AB A compn. which binds heparin and promotes cellular adhesion consists essentially of a polypeptide selected from Met-Phe-Lys-Lys-Pro-Thr-Pro-Ser-Thr-Leu-Lys-Ala-Gly-Glu-Leu-Arg, Thr-Ala-Gly-Ser-Cys-Leu-Arg-Lys-Phe-Ser-Thr-Met, Asn-Pro-Leu-Cys-Pro-Pro-Gly-Thr-Lys-Ile-Leu, or their ***mixts*** . These polypeptides are fragments of Type IV collagen .alpha.1-NC1 chain. Medical devices such as prosthetic implants, percutaneous devices, bandages, and cell culture substrates may be coated with the polypeptide compns.

L17 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:237190 HCAPLUS
DOCUMENT NUMBER: 110:237190
TITLE: **Biomaterials for artificial skin and ***implants*** containing acetylated chitosan, collagens, and glycosaminoglycans**
INVENTOR(S): Collombel, Christian; Damour, Odile; Gagnieu, Christian; Poinsignon, Frederique; Echinard, Christian; Marichy, Jacques
PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique, Fr.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 296078	A1	19881221	EP 1988-420194	19880614
EP 296078	B1	19910529		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
FR 2616318	A1	19881216	FR 1987-8752	19870615
WO 8810123	A1	19881229	WO 1988-FR303	19880614
W: JP, US				
JP 02500723	T2	19900315	JP 1988-505081	19880614
AT 63825	E	19910615	AT 1988-420194	19880614
US 5166187	A	19921124	US 1989-314508	19890215

PRIORITY APPLN. INFO.: FR 1987-8752 19870615
EP 1988-420194 19880614
WO 1988-FR303 19880614

AB Biomaterials comprise .gtoreq.1 compns. contg. a complex of **collagen**, acetylated chitosan (degree of acetylation .apprx.10-40), and glycosaminoglycans. Collagen (1% wt./vol.) was dissolved in 0.05M AcOH at pH 3.5, purified shrimp-shell chitosan was added to give a soln. contg. 15% by wt. chitosan with resp. to collagen, and a ***mixt*** . of chondroitin 4- and 6-sulfate was added to give a soln. contg. 6% by wt. chondroitin sulfate with resp. to collagen. The homogeneous ***mixt*** . was adjusted to pH 6.5-7 using Tris-HCl, lyophilized, sterilized, and packaged in plastic pouches contg. 70% alc. An artificial dermis comprising human collagen, chondroitin sulfate, glycosaminoglycans, and a biodegradable pseudoepidermis sterilized in 70% alc. showed an elongation of 20.1 mm and a Young's modulus of 0.29 kg/cm2 under a force of 0.23 da N. An artificial dermis of this type was inserted into a cut on the back of rats and sutures were applied; after 2 days a normal inflammatory reaction was obsd., followed by cell colonization after 7 days.

L17 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:592613 HCAPLUS
DOCUMENT NUMBER: 103:192613
TITLE: *****Collagen*** types in neocartilage ***tissue*** resulting from rib perichondrial ***graft*** in an articular defect - a rapid semi-quantitative methodology**
AUTHOR(S): Amiel, David; Harwood, Fred L.; Abel, Mark F.; Akeson, Wayne H.
CORPORATE SOURCE: Div. Orthop. Rehabil., Univ. California, San Diego, La Jolla, CA, 92093, USA
SOURCE: Collagen and Related Research (1985), 5(4), 337-47
CODEN: CREXDV; ISSN: 0174-173X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method for estg. the type II-to-type I ***collagen*** ratios in small ***tissue*** samples was developed. The CNBr peptides of ***tissue*** ***collagen*** were analyzed by SDS-gel electrophoresis. Marker peptides representative of each collagen type were established and their relative amts. detd. by integration of the stained peptide bands following gel scans. Marker peptide ratios were then computed for each of several std. type II/type I ***mixts*** . and these peptide ratios were math. correlated with the corresponding type II/type I collagen ratios. A linear relation between marker peptide ratio and collagen type ratio was established. This relation was applied to the anal. of type II/type I ratios in samples of rib perichondrium and neocartilage derived from perichondrial graft repairs of full thickness femoral condyle defects. The results indicated that perichondrial **grafts** synthesize both type II and I collagen and that the proportion of type II increases with increasing posttransplant time.

L17 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:493803 HCAPLUS
DOCUMENT NUMBER: 99:93803

TITLE: *Collagen ***implant*** material for augmenting soft tissue*

INVENTOR(S): Wallace, Donald G.; Wade, Susan B.
PATENT ASSIGNEE(S): Collagen Corp., USA
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 83868	A1	19830720	EP 1982-306910	19821223
EP 83868	B1	19860430		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4424208	A	19840103	US 1982-338661	19820111
JP 60054288	B4	19851129	JP 1982-212109	19821204
CA 1199580	A1	19860121	CA 1983-419184	19830110
PRIORITY APPLN. INFO.:			US 1982-338661	19820111

AB An injectable implant material for soft tissue augmentation consists of a dispersion of particles of crosslinked atelopeptide **collagen** and reconstituted fibrous atelopeptide **collagen** in a physiol. aq. carrier. The implant has improved vol. stability. Bovine hide was depilated by acid treatment and the hide dispersed in HCl and then incubated with pepsin for 100-300 h at 15-20.degree.. The pH was increased to 7, and the denatured enzyme removed and the soln. purified by chromatog to give atelopeptide **bovine collagen** in dil. HCl. **Fibrous collagen** was reconstituted from this soln. and by adding 0.02 M Na2HPO4. Crosslinked gel particles were sep. prepd. from the acidic soln. by treatment with glutaraldehyde and later ***mixed*** with the **fibrous collagen** dispersion. The ***mixt*** . was **implanted** s.c. in rats. The implant prepd. from the ***combination*** of **fibrous collagen and crosslinked collagen** had better persistence than that contg. only noncrosslinked fibrous collagen.

L17 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1972:10385 HCAPLUS
DOCUMENT NUMBER: 76:10385
TITLE: **Effect of porosity of heterogeneous poly(glycol monomethacrylate) gels on the healing-in of test ***implants***
AUTHOR(S): Sprincl, L.; Kopecek, J.; Lim, D.
CORPORATE SOURCE: Inst. Macromol. Chem., Czech. Acad. Sci., Prague, Czech.
SOURCE: Journal of Biomedical Materials Research (1971), 5(5),
447-58
CODEN: JBMRBG; ISSN: 0021-9304
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In rats, s.c. implants of disks of spongy heterogeneous poly(glycol monomethacrylate) [25249-16-5] gels contg. 50 and 60% water in the initial ***mixt*** . were healed in by encapsulation with ***collagen*** **fibrous** ***tissue*** within 90 days. No changes occurred in the implant. In polymers having a higher water content, vessels from the

newly formed fibrous capsule penetrated into the implant. The higher the porosity of the polymer, the narrower was the capsule and the broader was the zone of cellulization and newly-formed capillaries penetrating into the implant. A pos. Kossa's calcium reaction was found only sporadically in the margin of the implant.

L27 ANSWER 8 OF 11 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 90218056 EMBASE
DOCUMENT NUMBER: 1990218056
TITLE: **Subcutaneous ***implantation*** of hydroxylapatite/collagen in induced diabetic and non-diabetic rats.**
AUTHOR: El Deeb M.; Roszkowski M.T.; El Hakim I.
CORPORATE SOURCE: Department of Surgical and Diagnostic Sciences, University of Minnesota School of Dentistry, 7-174- Moos Tower, 515 Delaware St. S.E., Minneapolis, MN 55455, United States
SOURCE: International Journal of Oral and Maxillofacial Surgery, (1990) 19/2 ((113-119).
ISSN: 0901-5027 CODEN: IJOSE
COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
033 Orthopedic Surgery
030 Pharmacology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB To evaluate tissue reaction to **hydroxylapatite (HA) and HA/collagen mixtures** in rats with uncontrolled induced diabetes, 48 males were divided: 24 with induced diabetes (ID) from Streptozotocin (70 mg/kg) and 24 non-diabetic (ND) controls. Three subcutaneous sites in each chest were randomly implanted with non-porous HA, or non-porous HA and bovine collagen, or non-porous HA and purified fibrillar collagen. Subgroups of 6 ID and 6 ND rats were killed at 4, 6, 12, and 24 weeks post-implantation. Histologic specimens showed that all materials elicited greater inflammatory response in ID than in ND at all intervals. Each specimen had HA particles encapsulated by host fibrous tissue. Compared to ND, ID specimens had markedly reduced ingrowth and maturity of collagen at each time interval. There was no osteogenesis, but there was dystrophic mineralization within the implant sites in both ID and ND. ***Mixed*** HA/ ***collagen*** exceeded HA alone in maintaining implant contour. In soft ***tissue***, no materials were osteoinductive. Adding collagen did not increase or decrease inflammatory reaction nor improve density and maturity of tissue synthesized around implants.

L27 ANSWER 9 OF 11 MEDLINE on STN
ACCESSION NUMBER: 86253972 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3014128
TITLE: **Collagen tube containers: an effective means of controlling particulate hydroxyapatite ***implants*** .**
AUTHOR: Shen K; Gongloff R K
SOURCE: Journal of prosthetic dentistry, (1986 Jul) 56 (1) 65-70.
Journal code: 0376364. ISSN: 0022-3913.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Dental Journals; Priority Journals
ENTRY MONTH: 198607
ENTRY DATE: Entered STN: 19900321
Last Updated on STN: 19980206
Entered Medline: 19860731

AB HA has been used successfully as a hard tissue graft in alveolar ridge augmentation; however, its particulate nature limits its application to select cases. A study in rats was done to examine the feasibility of a ***combined*** system of HA encased in ***collagen*** film as a hard ***tissue*** graft. Gross, radiographic, and histologic examination showed that collagen film helped to shape and contain the HA particulate during healing for as long as 4 weeks. The collagen did not interfere with the normal tissue response around the HA particulate.

L27 ANSWER 10 OF 11 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 82205500 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6952831
TITLE: **Experimental induction of cementogenesis on the enamel of ***transplanted*** mouse tooth germs.**
AUTHOR: Heritier M
SOURCE: Archives of oral biology, (1982) 27 (2) 87-97.
Journal code: 0116711. ISSN: 0003-9969.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Dental Journals; Priority Journals
ENTRY MONTH: 198207
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19970203
Entered Medline: 19820708

AB First and second maxillary molar tooth germs with their surrounding bone were removed from 9-day-old mice, freed of the reduced enamel epithelium, re-inserted crown downwards in their bony crypts and then transplanted in the subcutaneous tissue of hosts of the same age and litter. Grafts were removed 14 days later and prepared for light and electron microscopy. In the areas where the reduced enamel epithelium was missing, a layer of cementum-like tissue was present on the enamel surface, always associated with cells showing the typical features of cementoblasts. A thin electron-lucent layer of fine fibrillar material separated the enamel surface from the new hard ***tissue*** which was composed of **densely-packed ***collagen*** ***mixed*** with a ground substance.** Where the cementum-like tissue was thick, cells were trapped in a collagenous matrix. The cementogenesis on enamel was strictly dependent on the absence of the reduced enamel epithelium. Thus, when exposed to follicular tissue, the surface of immature enamel appears to exert an influence on follicular cells and stimulate cementogenesis. This hypothesis could explain the presence of overgrowths of cementum in the cervical region of tooth crowns where the reduced enamel epithelium may be particularly vulnerable.

L27 ANSWER 11 OF 11 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 82066427 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7305141
TITLE: **Preservation of an infected arterial ***graft*** with

combination systemic-topical antibiotic therapy.

AUTHOR: Hinton P J; Bryant L R
SOURCE: American surgeon, (1981 Nov) 47 (11) 511-4.
Journal code: 0370522. ISSN: 0003-1348.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198201
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19820109

AB A case is presented which illustrates the unusual ability to retain a bifurcation aortofemoral vascular graft with the graft-to-femoral-artery anastomosis involved in a groin abscess. The drainage of the abscess, debridement of devitalized ***tissue*** , and the ***combined*** application of topical and systemic ***antibiotic*** therapy was successful. Some authors report that should an anastomosis of a bifurcation vascular graft, in the vicinity of the groin, become involved in infection, the threat of anastomotic disruption and continued sepsis may lead to amputation, death, or both. It is not the purpose of this report to advocate conservative management of a vascular graft infection with suture line involvement based on anecdotal experience. However, the case reported here and the experience of other authors mentioned suggest that an attempt to treat an infected graft without its removal may be indicated in selected patients where extra anatomical revascularization would be hazardous.

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200452
File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)
File 371:French Patents 1961-2002/BOPI 200209
Set     Items   Description
S1       5172   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
             STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
             OR FOETUS OR FAETUS)
S2     102845   TISSUE
S3      75684   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4        346   TISSUE()GRAFT? ?
S5     195657   IMPLANT? OR GRAFT?
S6    2343232   MIX? OR COMBIN?
S7      30774   TRANSPLANT?
S8        385   S1 AND S3:S4 AND (S5 OR S7)
S9        238   S1/TI AND (S5/TI OR S7/TI)
S10         4   S1(5N)S6(5N)S3:S4
S11         2   S9 AND S10 [too recent]
S12         2   S10 NOT S11 [too recent]
S13     51067   IC=C12N-005
S14    119709   IC=(A61K-045 OR A61K-038-39 OR A61K-048 OR A61K-035 OR A61-
            L-027)
S15     14129   IC=A61P-017
S16       190   S8 AND S13
S17       107   S16 AND S14:S15
S18      2000   PN=1995:2004
S19         5   AN=1991
S20    545063   AY=1991
S21   2090570   AY=1992:1995
S22   2846092   AY=1996:1999
S23   2505313   AY=2000:2004
S24         2   S16 NOT S20:S23
S25         2   S24 NOT S10 [too recent]
S26       195   S8 NOT S16
S27         2   S26 NOT S20:S23
S28         2   S27 NOT S10
S29      2717   S2 AND S3 AND (S5 OR S7)
S30      2445   S29 NOT S8
S31       354   S30 AND S13
S32      1058   S30 AND S14:S15
S33        23   S31 NOT S20:S23
S34        23   S33 NOT (S10 OR S24 OR S27)
S35       841   S32 NOT S31
S36       128   S35 NOT S20:S23
S37     74523   S5/TI OR S7/TI
S38        73   S36 AND S37
S39         0   S1 AND S38
S40        31   S2(15N)S3:S4 AND S38

28/34/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
007454484
WPI Acc No: 1988-088418/198813
  Retarding of ageing process - by  transplanting  immuno-suppressors and
```

young cells
Patent Assignee: YOSHIDA K (YOSH-I)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 63039820	A	19880220	JP 86184055	A	19860805	198813	B

Priority Applications (No Type Date): JP 86184055 A 19860805
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 63039820	A		2		

Abstract (Basic): JP 63039820 A

After immunoreaction preventional treatment comprising application of (1) **antibiotic** immunosuppressor cyclosporin(RTM) or FK 506 (develop number), or monoclonal immunosuppressor, young cells of voluntary persons, e.g., (a) fertilisation cell, (b) embryonal cell, **foetal cell** tissue, foetal organ, (c) young cells, young cell tissue, young cell organ obtd. from persons from birth to age 30 and (d) gene, cell nucleus, cytoplasm, cell membrane or the like of (a), (b) and (c) are **transplanted** to corresp. parts of an adult or older person together with growth hormone, differentiation hormone, sex hormone etc. as continuously supplied for growth of the young cells.

Specifically the immunosuppressors are taken through oral route or injection. The hormones are formed into microcapsules needed for 1 or several years

Derwent Class: B04; D16
International Patent Class (Additional): A61K-035/12; A61K-037/02; A61K-039/00

28/7/2 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

02422920
METHOD FOR KEEPING ETERNAL YOUTH BY SUPPRESSION OF REJECTION REACTION AND **TRANSPLANTATION** OF JUVENILE CELL
PUB. NO.: 63-039820 [JP 63039820 A]
PUBLISHED: February 20, 1988 (19880220)
INVENTOR(s): YOSHIDA KINGO
APPLICANT(s): YOSHIDA KINGO [000000] (An Individual), JP (Japan)
APPL. NO.: 61-184055 [JP 86184055]
FILED: August 05, 1986 (19860805)

ABSTRACT

PURPOSE: To prevent the aging of person, by subjecting an adult or senile person to the treatment for suppressing rejection reaction, **transplanting** juvenile cell into the body of the person and proliferating the cell, thereby gradually replacing the old cell with the fresh cell.
CONSTITUTION: An adult or senile person to be rejuvenated is subjected to the treatment for suppressing rejection reaction by an **antibiotic** immunosuppressing agent cyclosporin (TM), FK506 (development number) or monoclonal immunosuppressing agent. Juvenile cells of an arbitrary third person (e.g. (1) fertilized cell, (2) cell, tissue or organ of **fetus** , (3) juvenile **cell** , tissue or organ of a person of from childhood to 30 years old or (4) gene, cell nucleus, cytoplasm or cell membrane) are **transplanted** to the corresponding parts of the body of the person to be treated and, at the same time, a growth hormone, differentiation hormone, sex hormone, etc., are continuously supplied to the person to promote the

proliferation of the juvenile cells and to effect the rejuvenation of the body of the person to be rejuvenated.

34/26,TI/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008100694
WPI Acc No: 1989-365806/198950
Anti-CD18 antibody or active fragment - used for inhibiting influx of leukocyte(s) or inflammation of organs during sepsis or other trauma

34/26,TI/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008100603
WPI Acc No: 1989-365715/198950
Cell-proliferative protein from Harder's glands - used for treating disease due to cytoclasis or for culturing cells in medium contg. no serum

34/26,TI/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007996228
WPI Acc No: 1989-261340/198936
Transformation of plant cells - by controlled addition of antibiotics **to cultures contg. plant tissues and bacteria**

34/26,TI/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007347953
WPI Acc No: 1987-344959/198749
Tissue **cultivation of Duboisia plants - by infecting callus shoot or adventitious root culture with Agrobacterium rhizogenes**

34/26,TI/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004579734
WPI Acc No: 1986-083078/198613
Culture system for anchorage dependent mammalian cells - includes solid substrate of mitogenic calcium cpd. e.g. hydroxyapatite **for multilayer cell growth over long periods**

34/26,TI/13 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003677133
WPI Acc No: 1983-37103K/198316
Lichenous substances e.g. usnic acid prodn. - by cultivation of undifferentiated lichen e.g. usnea rubescens symbiont in culture medium

34/26,TI/20 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

04050293
PRODUCTION OF LICHENOUS COMPONENT BY TISSUE CULTURE OF LICHENOUS PLANT

34/26,TI/21 (Item 8 from file: 347)
DIALOG(R)File 347:JAPIO

03097371
EPITHELIAL TUMOR CELL STRAIN

34/26,TI/22 (Item 9 from file: 347)
DIALOG(R)File 347:JAPIO

02920991
PRODUCTION OF ANTIMICROBIAL SUBSTANCE

34/26,TI/23 (Item 10 from file: 347)
DIALOG(R)File 347:JAPIO

02194796
PRODUCTION OF SAPONIN

34/34/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013948880
WPI Acc No: 2001-433094/200147
Novel collagen matrix containing transduced subject-derived primary fibroblasts infected with retroviral vector comprising exogenous gene, for implantation in the loose connective tissue of the dermis of a subject
Patent Assignee: SALK INST BIOLOGICAL STUDIES (SALK)
Inventor: ST-LOUIS D C; VERMA I M
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
CA 1341246	C	20010605	CA 595744	A	19890405	200147	B

Priority Applications (No Type Date): US 88187214 A 19880428
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 1341246	C	E	50	C12N-015/12	

Abstract (Basic): CA 1341246 C

NOVELTY - A **collagen** matrix (I) containing transduced subject-derived primary fibroblasts, for **implantation** in the loose connective **tissue** of the dermis of a subject, where the transduced fibroblasts are infected with a recombinant retroviral vector that comprises exogenous genetic material encoding a gene product, where the transduced fibroblasts express the gene product, is new.

ACTIVITY - Antiinfertility.

MECHANISM OF ACTION - Gene therapy. Two artificial tissues containing 4x106 infected fibroblasts were **grafted** into the loose connective **tissue** of the dermis in the midback of a recipient C57BL/6 mouse. To ensure rapid vascularization, a 2-mm2 piece of gelfoam containing 2 mug of basic fibroblast growth factor was inserted into the loose connective **tissue** along with each **graft** . Serum samples were drawn at two day intervals and analyzed for the presence of human factor IX by ELISA. 3x105-7x105 of helper-free psiFIXNeo virus were

produced in the various cell lines, when assayed by NIH3T3 TK- cells. As measured by ELISA, all of the virus producing cell lines secreted essentially the same levels of factor IX into the culture media.

USE - (I) is useful in gene therapy in human subjects (claimed), especially useful for the treatment of certain diseases that are caused by gene defects. (I) is useful in fertility control.

ADVANTAGE - Fibroblasts are **implanted** in a highly vascularized compartment of the skin, and hence they have direct access to the circulatory system. As a result, the needed replacement gene products can easily and efficiently be distributed to other parts of the body. When the gene therapy is no longer needed, the **implanted** fibroblasts can be conveniently removed. (I) overcomes the inefficient expression of the foreign replacement genes, use of transduced cells that had the potential to be tumorigenic to the animal or individual being treated, use of harsh immunosuppressive agents to avoid the rejection by the animal or individual being treated, necrosis following subcutaneous injection of cells, and poor diffusion of the replacement gene product. Because of the high efficiency of the retroviral proviral infection and expression in fibroblasts, (I) eliminates the need to use marker genes to identify transduced cells. This greatly simplifies the overall problem of introducing replacement genes into cells that will be used for gene therapy. (I) is useful as continuous drug delivery system to replace present regimes that require periodic administration of needed substance.

pp; 50 DwgNo 0/5

Technology Focus:

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Composition: (I) comprises an angiogenic substance, e.g., fibroblast growth factor. The exogenous genetic material comprises at least one functionally active replacement gene which encodes at least one protein selected from blood clotting factors e.g., Factor VIII or Factor IX, hormones e.g., insulin, parathyroid hormone, luteinizing hormone releasing hormone (LHRH), human seminal and ovarian inhibins or human growth hormone, enzymes, inhibitors e.g., alpha1-antitrypsin, or drugs.

Extension Abstract:

ADMINISTRATION - No administration details given.

EXAMPLE - Human Factor IX cDNA was linked directly to the 5' long terminal repeat by inserting a 1.6 kb BamHI/HindIII fragment of the clone CVI between BglII and HindIII sites of pAFVXM. The entire expression unit from neomycin phosphotransferase expression plasmid (pKoNeo) was excised by partial HindIII digestion and inserted into the HindIII site of Factor IX viral construct. Helper free-recombinant ecotropic virus in psi2 cells was generated. Primary **mouse embryo fibroblasts** (MEF) were obtained from day 17 embryos of C57BL/6J mice. The BL/6 line, an immortalized skin cell line was derived from X-ray irradiated skin fibroblasts obtained from C57BL/6J mice. The skin fibroblast cell line BL/6 and NIH3T3 TK- cells were infected with recombinant retroviruses from cell line, psiFIXNeo 4, at a multiplicity-of-infection (moi) of 1-2, and MEF cells were infected at a moi of 5. Infected BL/6 and **MEF cells were cultured in** vitro in an **extracellular matrix composed of** rat tail type I **collagen** and Dulbecco's modified eagle medium supplemented with 10% **fetal bovine serum**, at 37degreesC for 3 days, during which the **collagen** lattice contracted to a **tissue** -like structure.

Derwent Class: B04; D16

International Patent Class (Main): C12N-015/12
International Patent Class (Additional): A61K-035/12; A61K-048/00;
C12N-005/10 ; C12N-015/79

34/34/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008230798
WPI Acc No: 1990-117799/199016
Prepn. of cultured epidermal sheet from foreskin - useful in skin grafts **after storage for up to two years**
Patent Assignee: NEC CORP (NIDE); TUTORTEC INC (TUTO-N)
Inventor: CHAO C
Number of Countries: 018 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 364306	A	19900418	EP 89310582	A	19891016	199016 B
CA 2000181	A	19900414				199019
PT 91971	A	19900430				199022
DK 8905090	A	19900415				199026
AU 8942776	A	19900426				199033
JP 2174848	A	19900706	JP 89270147	A	19891016	199033

Priority Applications (No Type Date): US 88257558 A 19881014
Cited Patents: 6.Jnl.Ref; A3...9027; EP 242305; JP 1158963; NoSR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 364306	A				

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE
Abstract (Basic): EP 364306 A

Mammalian epidermal cells, suitable for an allograft, may be cultured by growing the cells on a **collagen** type I treated surface in the absence of serum, in the presence of a growth medium comprising epidermal growth factor (EGF), to form an approximately confluent layer of cells, and then growing the confluent cell layer to a plurality of layers on a serum-contg. medium. Also claimed is a method for storing a cultured epidermal sheet for a skin **graft** by releasing the sheet from a culture surface and freezing it. The frozen cultured epidermal sheet is claimed per se.

USE/ADVANTAGE - The stored sheets of epidermis are for use in skin **grafts** . Using the method cells can be grown to a relatively uniform sheet, without holes or lumps, thus providing a more durable and more protective sheet of skin than previously available. The sheets of epidermis can be grown from **tissue** from sources other than the **graft** recipient enabling a tremendous increase in supply. The method also overcomes the possibility of rejection of the **graft** by the patient's immune system. (6pp Dwg.No.0/0)

Derwent Class: B04; D16; D22; P34
International Patent Class (Additional): A61K-035/36; A61L-027/00;
C12N-005/00

34/34/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008222439
WPI Acc No: 1990-109440/199015

Proliferated human foetal pancreatic islet progenitor cells - used for implanting in humans to develop into functional islets contg. mature islet cells

Patent Assignee: HANA BIOLOGICS INC (HANA-N)
Inventor: MCHUGH Y E; MOSS P S; VOSS H F; WALTHALL B J; ZAYAS J R
Number of Countries: 014 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 363125	A	19900411	EP 89310059	A	19891002	199015	B
JP 2200178	A	19900808	JP 89258639	A	19891003	199038	

Priority Applications (No Type Date): US 88252300 A 19881003
Cited Patents: 1.Jnl.Ref; A3...9033; EP 213908; No.Sr.Pub; US 4477567
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 363125	A				

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE
Abstract (Basic): EP 363125 A

Mixt contg proliferated human foetal pancreatic islet progenitor (HF PIP) cells is claimed, the proportion of pancreatic cells to exocrine and fibroblast cells being greater than in foetal pancreas **tissue** . the proliferated **HF PIP cells may be in contact with a substrate packaging matrix. The matrix may include eg Collagen** Type I, **Collagen** Type IV and laminin. Also claimed are proliferated human pancreatic progenitor cells.

USE - Proliferated human pancreatic progenitor cells when **implanted** in humans having missing or deficient pancreatic beta-cells, a characteristic of diabetes mellitus can develop into functional islets contg mature islet cells. The mature pancreatic isolates become a functioning source of insulin, glucagon and somatostatin for regulation of blood glucose levels in the patient.

Dwg.0/0
Derwent Class: B04; D16
International Patent Class (Additional): A61K-035/12; **C12N-005/00**

34/34/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007066570
WPI Acc No: 1987-066567/198710

Transplanting artificial tissue contg. viable cells - in porous matrix permitting cell contact and movement during tissue growth

Patent Assignee: HANA BIOLOGICS INC (HANA-N)
Inventor: BOSS H F; MCHUGH Y E; WALTHALL B J
Number of Countries: 014 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 213908	A	19870311	EP 86306544	A	19860822	198710	B
AU 8661749	A	19870305				198716	
JP 62079065	A	19870411	JP 86197461	A	19860825	198720	
US 4902295	A	19900220	US 87118280	A	19871106	199014	
US 4997443	A	19910305	US 89445563	A	19891204	199112	

Priority Applications (No Type Date): US 85770027 A 19850826; US 89445563 A 19891204
Cited Patents: A3...8912; EP 129619; EP 54396; GB 2094750; No-SR.Pub
Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
EP 213908 A E 30
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE
US 4902295 A 8
Abstract (Basic): EP 213908 A

Matrix compsn. comprising viable cells in a porous matrix of nontoxic biocompatible polymer is new, the matrix with particle size of 0.02-5 mm and pore structure and size permitting cell movement within the matrix and movement of host cells into the matrix and diffusion of nutrients and macromolecules into and out of the matrix. Prodn. of a **transplantable** artificial **tissue** matrix comprises: (a) polymerising polymer precursors in an aq. soln. contg. matrix-, and reversible gel-polymer precursors, and viable cells to form a shape retaining solid matrix comprising viable cells, matrix and reversible gel-polymers, (b) dissolving and removing gel polymer from the matrix; and (c) recovering an insol. porous matrix contg. viable cells; where the conditions and reagents are selected to not significantly impair cell viability.

USE/ADVANTAGE - Useful for **implantation** of e.g. fibroblasts, kidney-, liver-, thymus- or thyroid-cells, epidermal keratinocytes, or esp. pancreatic islets or islet cells for treatment of insulin-dependent diabetes mallitus. The matrix encourages cell-cell contact for growth while permitting cell movement for rearrangement during **tissue** development. The matrix permits host cell entry for vascularisation.

0/0

Abstract (Equivalent): US 4997443 A

Transplantable artificial **tissue** matrix comprises a **dispersion of living cells in a biopolymer matrix**. Prodn. of these materials comprises polymerisation of one or more suitable precursors in an aq. dispersion contg. viable cells and a reversible gel polymer precursor; then dissolving the reversible gel polymer from the matrix to leabe an insoluble porous matrix contg. a dispersion of viable cells. **Typical polymer precursors are** plasma, fibrinogen, casein, fibrin, limulus lysate, milk protein and **collagen** , e.g. plasma is polymerised on addn. of Ca2+ ions, fibrinogen is polymerised with thrombin, etc.. Suitable reversible gel polymer precursors are alginates and polysaccharide gums.

USE - The process is applicable to matrices contg. pancreatic B-cells, which function as an artificial pancrease, providing insulin for diabetics. (8pp)

US 4902295 A

Matrix compsn. comprises viable cells incorporated throughout a porous matrix of non-toxin biocompatible polymer free from fibroblasts.

Polymer comprises the polymerisation prod. of a matrix polymer precursor and a reversible gel polymer. Matrix has particle size 0.02-3 mm., and has pore structure and size permitting cell movement through the matrix, movement of host cells into the matrix and diffusion of nutrients and macromolecules into and out of the matrix. Compsn. is not encapsulated in a semipermeable membrane.

USE - For artificial **transplant** matrix **tissue** contg. pancreatic islet cells. (8pp)o

Derwent Class: A96; B04; D22; P32; P34
International Patent Class (Additional): A61F-002/02; A61K-009/50; A61K-035/39; A61L-027/00; A61M-001/36; A61M-037/00; **C12N-005/00**; C12N-011/04

34/34/11 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003696786
WPI Acc No: 1983-56769K/198324
Purificn. and extn. of human placenta collagen biomaterial - used as culture cell support, in embryo, organ and tissue culture, genetic engineering, prostheses etc.
Patent Assignee: CENT TECH DU CUIR (TECU-N); CENT TECHN DU CUIR (CTQC-N); FOND MERIEUX (INMR)
Inventor: BONNEAU M; COMTE P; HERBAGE D; MERIEUX C; PLAY D
Number of Countries: 013 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 80956	A	19830608	EP 82420162	A	19821125	198324 B
FR 2516927	A	19830527				198326
AU 8290899	A	19830602				198329
JP 58170795	A	19831007				198346
US 4511653	A	19850416	US 83545398	A	19831014	198518
EP 80956	B	19850828				198535
DE 3265898	G	19851003				198541
CA 1199597	A	19860121				198608
WO 8603504	A	19860619	WO 82FR199	A	19821125	198626

Priority Applications (No Type Date): FR 8122606 A 19811126
Cited Patents: 5.Jnl.Ref; No-SR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 80956	A	F	16		
Designated States (Regional): BE CH DE GB IT LI NL SE					
EP 80956	B	F			
Designated States (Regional): BE CH DE GB IT LI NL SE					
WO 8603504	A	F			
Designated States (National): US					

Abstract (Basic): EP 80956 A

Prepn. of human collagenic material from human placenta **tissue** comprises (a) pressing, grinding and washing the placenta **tissue** in neutral and acid medium; (b) submitting the **tissue** from (a) to a strong alkaline treatment at a temp. below or equal to 10 deg.C; (c) submitting the **collagen** solubilised during the treatment, and also **collagen** solns. arising from optional further treatments to solubilise at least part of the residue, a purificn. by anion exchange chromatography, at a temp. below or equal to 10 deg.C; and (d) fractional pptn. of the **collagen** by salts in acid medium.

Used in biotechnology and pharmacy for (i) support for various types of cells in in-vitro cultures, e.g. the **collagen** may be used to coat dishes, flasks, glass slides, etc. and heat sterilised before being used as an in-vitro support for cells, such as hepatocytes used to grow human hepatitis virus for vaccine prepn.; (ii) in embryo culture of fertilised ova from various mammals; (iii) in organ or **tissue** culture, e.g. skin, thyroid gland, surrenal, pancreas, etc.; (iv) prepn. of materials, appts., etc. used in genetic engineering, medical appts. etc., e.g. purificn. of human plasma or blood (dialysis, artificial pancreas, etc.). Biologically active molecules may be **grafted** or included in the **collagen** , e.g. antibodies, antigens,

enzymes, hormones. The collagens may be used in the prepn. of protheses and other bio-material. Insoluble collagens may be used to produce haemostatic sponges, sutures, surgical membranes etc. Biologically active cpds. may be adsorbed, mechanically included or **grafted** to the **collagen** . Soluble collagens may be used as **biodegradable** microfibrils in synthetic blood, etc. The prods. are free from antigen reactions for humans and form a new biomaterial for numerous uses.

Derwent Class: B04; D16; P32; P34
International Patent Class (Additional): A61F-001/00; A61F-002/00; A61K-035/50; A61K-037/12; A61L-017/00; A61M-001/03; C07G-007/00; C07K-003/02; C07K-015/06; C08H-001/00; C08L-089/06; **C12N-005/00** ; C12P-021/02; C12P-021/06

34/34/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003693156
WPI Acc No: 1983-53137K/198322
Establishment of human pituitary hormone-producing strains - by dispersing pituitary gland in protease soln., cultivating in serum and ham f-10 medium, then transplanting to live animal to multiply
Patent Assignee: TERUMO CORP (TERU)
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 58069818	A	19830426	JP 81168723	A	19811023	198322	B
JP 88018467	B	19880419				198819	

Priority Applications (No Type Date): JP 81168723 A 19811023; JP 82138442 A 19811022
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 58069818	A		5		

Abstract (Basic): JP 58069818 A

Establishment of human pituitary hormone-producing strains comprises dispersing a pituitary gland **tissue** excised from a human body in a protease soln., pref. a dispase soln. of 50-1200 protease unit/ml, partic. 300 protease unit/ml, cultivating the resulting cell dispersion in a culture medium contg. a serum and Ham F-10 medium, **transplanting** the epithelial cells thus proliferated to an animal, pref. nude mouse or nude rat, with hypoimmunity, excising the **transplanted** cells thus proliferated in said animal's body, and again dispersing the excised **transplanted** cells in a protease soln. followed by cultivating using the above culture medium.

The culture medium pref. contains 1-25 vol.% of a serum, pref. a mixed serum of bovine neonate serum, bovine foetus serum and horse serum, partic. at a vol. ratio of 4:2:1. The culture medium pref. contains an **antibiotic** , esp. with the following compsn.: Ham F-10 825 (pts. by vol.); Bovine neonate serum 100; Bovine fatus serum 50; Horse serum 25; Penicillin 50 (unit/ml); Streptomycin 50.

Pref. the cultivation of the excised **transplanted** cells is immunological selective cultivation using a spleen antibody and complement of the **transplanted** animal.

The established strains stably maintain their capability of producing pituitary hormone for long periods of time. Therefore, the pituitary hormones such as somatotropic hormone can be obtd. in a large

quantity at low cost
Derwent Class: B04; D16
International Patent Class (Additional): A61K-035/12; A61K-037/36; **C12N-005/00** ; C12N-015/00; C12R-001/91

40/26,TI/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008959161
WPI Acc No: 1992-086430/199211
Material prodn. for implant **for treating damaged** tissue **- by shaping mixt. of** biodegradable **polymer, solvent, granulate and solvent for granulate, removing solvents and washing out granulate**

40/26,TI/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008749836
WPI Acc No: 1991-253850/199135
Non-biodegradable **corneal** implant **- having** collagen **core with acylated amine or esterified carboxyl gps. and fibrous** collagen **periphery**

40/26,TI/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008613818
WPI Acc No: 1991-117848/199117
Medical implant **- comprises porous polyvinyl alcohol polymer esp. coated with** collagen **has good flexibility and firmly attaches to** tissue

40/26,TI/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008591908
WPI Acc No: 1991-095940/199114
Cast metal orthopaedic implant **with** tissue **ingrowth surface - comprising lattice element integrally cast using lost wax process**

40/26,TI/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008331501
WPI Acc No: 1990-218502/199029
Implant **materials for hard** tissue **replacement - contain thermotropic, mesomorphic polymer, e.g. aromatic polyester, etc., apatite, pref. hydroxy-apatite, and opt. another filler**

40/26,TI/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008262766
WPI Acc No: 1990-149767/199020
Porous implant **esp. for connecting prosthesis to bone - has porous layer of small spheres, covered by layer of calcium hydroxy-apatite**

40/26,TI/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
008014786
WPI Acc No: 1989-279898/198939
Synthetic vascular graft **with fibrous structure - with coating of non-**biodegradable **elastomer prevents** tissue **and capillary ingrowth into** graft **wall**

40/26,TI/14 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007638625
WPI Acc No: 1988-272557/198839
Carbonate-contg. hydroxyapatite **prodn. - by low pressure hydrothermal conversion of hard** tissue **, useful in prodn. of biocompatible** implants

40/26,TI/16 (Item 16 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007151887
WPI Acc No: 1987-151884/198722
Implant **lens with outer layer of** biodegradable **material - useful as substitute for natural eye lens** tissue **without opacity problems even on long term use**

40/26,TI/17 (Item 17 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007051384
WPI Acc No: 1987-051381/198708
Surgical implants **- have solid core coated with matrix in which** collagen **fibres are partially embedded to provide biological anchoring to surrounding tissues**

40/26,TI/18 (Item 18 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004672883
WPI Acc No: 1986-176225/198627
Implant **promoting connective** tissue **regeneration - comprises copolymer of epsilon-polycaprolactone and lactide, with osteogenic material component**

40/26,TI/19 (Item 19 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004598579
WPI Acc No: 1986-101923/198616
Physiological seal around protruding implants **etc. dental anchorages - employs growth attachment to connective** tissue **or bone to prevent entry of bacteria**

40/26,TI/22 (Item 22 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

004457833
WPI Acc No: 1985-284711/198546
Soft tissue implant **- comprising alloplastic prosthesis encased in atelopeptide** collagen **coating**

40/26,TI/23 (Item 23 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004260082
WPI Acc No: 1985-086960/198514
Biodegradable **glass** implant **contg. phosphorus pentoxide - and alumina includes chemotherapeutic metal, for bone substitution**

40/26,TI/24 (Item 24 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003929813
WPI Acc No: 1984-075357/198413
Ceramic or glass coated implant **- with organo-silicon polymer overcoat coupled with pref polypeptide layer**

40/34/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008490000
WPI Acc No: 1990-377000/199051
Prepn. of crosslinked collagen **bio-polymer from animal eye sclera - by irradiating** collagen **soln. satd. with di-nitrogen oxide and prodn. of** implant **for treating eye injury**
Patent Assignee: EYE MICROSURGERY RES TECH COMPLEX (EYEM-R); EYE MICROSURGERY RE (EYEM-R); FEDOROV S N (FEDO-I); EYE MICROSURGERY RES TECH INST (EYEM-R)
Inventor: BAGROV S N; FEDOROV S N; TROFIMOV V I; AMSTISLAVS S; OSIPOV A V; AMSTISLAVSKAJA T; BAGROV S; FEDOROV S; OSIPOV A; TROFIMOV V
Number of Countries: 007 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3918628	A	19901213	DE 3918628	A	19890607	199051	B
US 4978352	A	19901218	US 89356263	A	19890523	199102	N
FR 2647793	A	19901207	FR 897330	A	19890602	199105	N
SE 8901958	A	19901201				199105	N
HU 54056	T	19910128				199109	N
CN 1048326	A	19910109				199139	N
IT 1234738	B	19920526	IT 8941633	A	19890612	199244	N
DE 3918628	C2	19950518	DE 3918628	A	19890607	199524	
CN 1098944	A	19950222	CN 89106409	A	19890630	199722	N
			CN 94104883	A	19890630		

Priority Applications (No Type Date): DE 3918628 A 19890607; US 89356263 A 19890523; FR 897330 A 19890602; IT 8941633 A 19890612; CN 94104883 A 19890630
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3918628	C2		6	C09H-007/00	
CN 1098944	A			A61L-027/00	Div ex application CN 89106409
IT 1234738	B			C08H-000/00	

Abstract (Basic): DE 3918628 A

In prepn. of a crosslinked biopolymer based on **collagen** by alkaline salt treatment of the eye sclera of animals, homogenisation of the **tissue** obtd. with an aq. soln. of organic acid until a **collagen** soln. forms, and then extn. of low-mol. impurities, (a) the **collagen** soln. freed from impurities is satd. with N2O, (b) the soln. is brought to a concn. of at most 80 wt.% and (c) the soln. is irradiated with ionising radiation at a dose of 0.5-15 kGy until a crosslinked biopolymer forms.

Pref. before irradiation, the **collagen** soln. is partly degassed by centrifuging for 10-30 mins. at 3-40 x 10 power(3) rpm. In prodn. of an **implant** , (i) the **collagen** soln. freed from impurities is brought to a concn. of 0.2-1.3 wt.%, (ii) the soln. is satd. with N2O, (iii) a mould is charged with the soln. and irradiated with ionising radiation at a dose of 0.5-15 kGy, (iv) the **implant** blank, of crosslinked biopolymer based on **collagen** , is dialysed for 24-48 hrs. in water, (v) the blank is dried to a moisture content of 30-50 wt.% in the crosslinked biopolymer, and (vi) the blank is given the shape and size of the **implant** , to ensure complete sealing of wounds to the cornea of corium in eye injuries. Before being charged into the mould, the soln. may be partly degassed by successive freezing and thawing at 20-25 deg.C and centrifuging for 10-60 mins. at 1-2 x10 power(3) rpm. The **implant** is shaped so that it is a cylinder with tapered end, with a length of 3-5 mm and a dia. of the base of 0.5-4.0 mm.

USE/ADVANTAGE - The biopolymer is used in ophthalmology, as **implant** for sealing wounds of the cornea or corium in injuries to the eye (claimed), and as contact lens. The biopolymer has adequate strength, high degree of swelling and resistance fo enzymes.

DWg.0/0

Abstract (Equivalent): US 4978352 A

Collagen -based crosslinked bropolymer is produced by (a) alkali treating animal sclera; (b) homogenising **tissue** obtd. with an aq. soln. of organic acid; (c) extracting low mol, wt. impurities from **collagen** soln. prod.; (d) saturating soln. with NO; (e) bringing **collagen** soln. to concn. 80 wt.% or less; and (f) exposing to ionising radiation in dose 0.5-15kGy to form prod. Pref. soln. is partially degassed by centrifugation at 3000-4000 r.p.m. for 10-30 mins. USE - As **implant** for hermetisation of corneal and scleral wounds involved in eye injuries.

(6pp

Derwent Class: A11; A96; D22; P32; P34

International Patent Class (Main): **A61L-027/00** ; C08H-000/00; C09H-007/00

International Patent Class (Additional): A61F-002/00; A61F-002/14; **A61F-009/00** ; **A61K-035/44** ; A61K-037/12; A61K-041/00; **A61L-015/12** ; B29D-011/00; C07K-002/00; C07K-014/78; C07K-015/20; C09H-003/00

40/34/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

008461276

WPI Acc No: 1990-348276/199046

Functional cell-matrix structures - used for implanting large volumes of cells to act as replacements for organs

Patent Assignee: MASSACHUSETTS INST TECHNOLOGY (MASI); CHILDRENS MEDICAL CENT (CHIL-N); VACANTI J P (VACA-I)

Inventor: GRIFFITH-CIMA L; JOHNSON L; LANGER R S; VACANTI J P; JOHNSON L R;
GRIFFITHCI L; LANGER R; VACANTI J
Number of Countries: 019 Number of Patents: 012
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9012604	A	19901101				199046 B
AU 9055691	A	19901116				199107
EP 422209	A	19910417	EP 90907948	A	19900425	199116
JP 4501080	W	19920227				
AU 636346	B	19930429	AU 9055691	A	19900425	199324
EP 422209	B1	19950315	EP 90907948	A	19900425	199515
			WO 90US2257	A	19900425	
DE 69017820	E	19950420	DE 617820	A	19900425	199521
			EP 90907948	A	19900425	
			WO 90US2257	A	19900425	
ES 2072434	T3	19950716	EP 90907948	A	19900425	199535
JP 10263070	A	19981006	JP 90507248	A	19900425	199850
			JP 9869123	A	19900425	
JP 3073766	B2	20000807	JP 90507248	A	19900425	200042
			WO 90US2257	A	19900425	
JP 2001314498	A	20011113	JP 9869123	A	19900425	200207
			JP 2001144028	A	19900425	
CA 2031532	C	20030225	CA 2031532	A	19900425	200324
			WO 90US2257	A	19900425	

Priority Applications (No Type Date): US 89343158 A 19890425
Cited Patents: US 4637931; WO 8803785
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9012604	A		48		
Designated States (National): AU CA FI JP KR NO					
Designated States (Regional): AT BE CH DE DK ES FR GB IT LU NL SE					
EP 422209	A				
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
JP 4501080	W		14		Based on patent WO 9012604
AU 636346	B			A61L-027/00	Previous Publ. patent AU 9055691
					Based on patent WO 9012604
EP 422209	B1	E	23	A61L-027/00	Based on patent WO 9012604
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
DE 69017820	E			A61L-027/00	Based on patent EP 422209
					Based on patent WO 9012604
ES 2072434	T3			A61L-027/00	Based on patent EP 422209
JP 10263070	A		14	A61L-027/00	Div ex application JP 90507248
JP 3073766	B2		13	A61L-027/00	Previous Publ. patent JP 4501080
					Based on patent WO 9012604
JP 2001314498	A		14	A61L-027/00	Div ex application JP 9869123
CA 2031532	C	E		A61L-027/00	Based on patent WO 9012604

Abstract (Basic): WO 9012604 A

A method of making a functional cell-matrix structure is claimed comprising (a) providing a biocompatible matrix formed from **biodegradable** and/or non- **biodegradable** materials and having viable cells attached and (b) **implanting** the matrix juxtaposed with **tissue** having high surface area and vasculature adjacent the surface of the **tissue** so that adequate nutrients and gas exchange between the attached cells and the blood occurs for the cells to remain viable and to function.

USE/ADVANTAGE - The matrices can attach large volumes of cells and can be **implanted** to form organs which functionally resemble naturally occurring organs such as liver, pancreas and adrenal glands.

Abstract (Equivalent): EP 422209 B

The use of a matrix structure comprising a biocompatible material in a fibrous shape having interstitial spacing in the range of 100 to 200 micron and having viable parenchymal cells attached thereto in the mfr. of a surgical **implant** for use in the emthod of surgery comprising **implanting** a plurality of matrices between folds of **tissue** having high surface area and vasculature adjacent the surface of the **tissue** .

Dwg.1a/7

Derwent Class: A96; B04; D22; P34
International Patent Class (Main): **A61L-027/00**
International Patent Class (Additional): C12N-011/08

40/34/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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008007553

WPI Acc No: 1989-272665/198938

Biodegradable bone or tissue graft substitute - comprising macrostructure of porous, biodegradable polymer carrying chemo-tactic material and biologically-active therapeutic agents

Patent Assignee: OSMED INC (OSME-N)
Inventor: BREKKE J H
Number of Countries: 002 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2215209	A	19890920	GB 8811274	A	19880215	198938	B
JP 1232967	A	19890918	JP 88174831	A	19880712	198943	
GB 2215209	B	19920826	GB 8811274	A	19880512	199235	
JP 2820415	B2	19981105	JP 88174831	A	19880712	199849	

Priority Applications (No Type Date): US 88167370 A 19880314
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2215209	A		32		
JP 2820415	B2		10	A61L-027/00	Previous Publ. patent JP 1232967
GB 2215209	B			A61L-027/00	

Abstract (Basic): GB 2215209 A

A **biodegradable** device for use in healing of structural voids in bone cartilage as well as soft **tissue** has the following three components juxtaposed: (a) a gross- or macro-structure of porous **biodegradable** polymer providing architecture as well as structural and mech. integrity to the void; (b) a microstructure of a chemotactic ground substance integrated throughout the spaces in (a); and (c) biologically active and/or therapeutic agent(s) carried by either (a) or (b) or at the (a)/(b) interface.

ADVANTAGE - The constituents are together in a single body which, when **implanted** in a bone defect, restores bone integrity, initiates osteoinduction and osteogenesis, functions as a carrier for various agents and, at the same time, completely **biodegrades** .

Dwg.0/6

Abstract (Equivalent): GB 2215209 B

A **biodegradable** device for use in healing of structural voids in

bone cartilage as well as soft **tissue** has the following three components juxtaposed: (a) a gross- or macro-structure of porous **biodegradable** polymer providing architecture as well as structural and mech. integrity to the void; (b) a microstructure of a chemotactic ground substance integrated throughout the spaces in (a); and (c) biologically active and/or therapeutic agent(s) carried by either (a) or (b) or at the (a)/(b) interface.

ADVANTAGE - The constituents are together in a single body which, when **implanted** in a bone defect, restores bone integrity, initiates osteoinduction and osteogenesis, functions as a carrier for various agents and, at the same time, completely **biodegrades** .

(32pp Dwg.No.0/6

Derwent Class: A96; B07; D22; P32; P34
International Patent Class (Main): **A61L-027/00**

40/34/11 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007915151
WPI Acc No: 1989-180263/198925

Implantation material for soft tissue prostheses - contg. decalcified bone in which native proteins have been crosslinked

Patent Assignee: IMMUNO AG (IMMO)
Inventor: PRIDUN N; REDL H; SCHLAG G
Number of Countries: 018 Number of Patents: 012
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 321442	A	19890621	EP 88890314	A	19881212	198925	B
NO 8805618	A	19890710				198933	
DK 8806975	A	19890618				198936	
FI 8805851	A	19890618				198940	
JP 1212559	A	19890825	JP 88319329	A	19881216	198940	
US 5139527	A	19920818	US 88283841	A	19881213	199236	
			US 90563804	A	19900806		
EP 321442	B1	19930505	EP 88890314	A	19881212	199318	
DE 3880804	G	19930609	DE 3880804	A	19881212	199324	
			EP 88890314	A	19881212		
AT 8703337	A	19940415	AT 873337	A	19871217	199418	
ES 2053817	T3	19940801	EP 88890314	A	19881212	199432	
AT 398373	B	19941015	AT 873337	A	19871217	199440	
CA 1333050	C	19941115	CA 585604	A	19881212	199501	

Priority Applications (No Type Date): AT 873337 A 19871217
Cited Patents: 1.Jnl.Ref; A3...9102; GB 2175506; GB 2175507; GB 2175807; No-SR.Pub; US 4394370
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 321442	A	G	6		
Designated States (Regional): AT BE CH DE ES FR GB IT LI LU NL SE					
US 5139527	A		5	A61F-002/54	Cont of application US 88283841
EP 321442	B1	G	7	A61L-027/00	
Designated States (Regional): AT BE CH DE ES FR GB IT LI LU NL SE					
DE 3880804	G			A61L-027/00	Based on patent EP 321442
ES 2053817	T3			A61L-027/00	Based on patent EP 321442
AT 398373	B			A61L-027/00	patent AT 8703337
AT 8703337	A			A61L-027/00	

CA 1333050 C A61L-027/00
Abstract (Basic): EP 321442 A
New biologically absorbable **implantation** material for filling or sealing soft-**tissue** cavities and for replacing soft **tissue** parts consists of bone **tissue** of human or animal origin formed into shaped bodies, (A) the bone **tissue** having been decalcified and its native proteins having been crosslinked with a protein crosslinking agent in order to avoid and osteoinductive action and (B) the shaped bodies having a high elasticity at low hysteresis between the loaded and unloaded state.
USE/ADVANTAGE - Soft-**tissue** prosthetic material for use, e.g. following lung resection. The new materials are non-osteoinductive, are free from inflammation-inducing activity, and have outstanding elasticity properties.
0/1
Abstract (Equivalent): EP 321442 B
A biologic absorbable **implant** material of human or animal origin for filling and closing soft- **tissue** cavities, comprising spongiosa bone **tissue** moulded to shaped bodies and having spongy consistency at a pore volume of 55-95%, which material has a maximum residual calcium content of 80 mmol/g. wet wt. in the moist state, is compressible in the dry state, yet resumes its original shape in the presence of moisture ('memory effect') and is obtainable by decalcifying spongiosa bone **tissue** and treating with a protein crosslinking agent, if desired, impregnating with pharmaceutical solns., such as solns. of **tissue** adhesives based on fibrinogen or **collagen** , drying and sterilising. (Dwg.1/1)
Abstract (Equivalent): US 5139527 A
Bioabsorbable soft **tissue** **implant** material for filling and closing soft **tissue** cavities comprises decalcified spongiosa bone **tissue** (I) moulded into shape.
(I) has its native proteins crosslinked to avoid osteoinductive effects. The pore volume of (I) is 55-95%. The shaped prods. are elastic when moistened and have low hysteresis between the loaded and unloaded conditions. Pref. (I) also contains pharmaceutically active materials. Its max. residual Ca content is 80 mMol/g wet weight.
USE - For sealing bronchopleural fistulas after lung resections and lung diseases. (Dwg.0/1)p
Derwent Class: B07; D22; P32; P34
International Patent Class (Main): A61F-002/54; **A61L-027/00**
International Patent Class (Additional): A61L-025/00; A61L-031/00

40/34/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007805094
WPI Acc No: 1989-070206/198910
Graft **for repair of connective** tissue **- using crosslinked connective animal fibres in non-immobilised joint aligned along ingrowing fibrous cells**
Patent Assignee: BIO-PRODUCTS INC (BIOP-N)
Inventor: CHVAPIL M
Number of Countries: 012 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 306018	A	19890308	EP 88114262	A	19880901	198910	B
US 5078744	A	19920107	US 89411230	A	19890922	199205	

Priority Applications (No Type Date): US 8793018 A 19870904; US 89411230 A 19890922
Cited Patents: DE 2716602; DE 3203957; EP 106501; FR 2410394; US 4264493; WO 8500511
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
EP 306018 A E 18
Designated States (Regional): BE CH DE ES FR GB IT LI LU NL SE
Abstract (Basic): EP 306018 A

A **graft** for repairing damaged connective **tissue** is made from long, thin **animal fibres**. These are crosslinked and held in a bundle where the fibres lie parallel and are **implanted** to provide a matrix for the growth of ingrowing fibrogenic cells and natural **collagen** .

The fibres are pref. bovine Achilles tendon fibres, 8-30 cm. long and 50-100 microns thick.

The fibres are pref. crosslinked using hexamethylenediisocyanate to produce a shrinkage temp. of 75-85 deg.C. This reduces antibody formation and allows only a preselected amt. of water retention by the fibres to cause them to be more attractive to attachment of fibrogenic cells. The mechanical strength of the fibres is 4-8 kg/sq.mm. The compliance of the heterograft is the same as the damaged connective **tissue** to produce optimal stressing of the ingrowing **tissue** .

USE/ADVANTAGE - The **graft** is pref. applied to a joint which is not immobilised so that normal stress is applied while the new fibres grow. The **graft** has good association with the repair **tissue** but permits sliding of the new tendon material without adhesion to existing material.

Abstract (Equivalent): US 5078744 A

Natural interior cruciate ligament **tissue** is regrown in place of damaged **tissue** of a joint. Process comprises (a) crosslinking purified individual long thin connective animal tendon or ligament **tissue** fibres to a shrinkage temp. of 75-85 deg. C so that tensile strength of 4-8 kg per sq. mm. is obtd.; (b) forming an elongated heterograft of the fibres, by arranging fibres in close parallel relationship then positioning gps. obtd. in the direction of a longitudinal axis of heterograft, so that each extends from one end to the other; (c) replacing at least part of the damaged **tissue** with the heterograft, so that fibres are oriented in the same direction as natural fibres, to cause ingrowth of fibrogenic cells along the connective **tissue** fibres and host connective **tissue** by ingrowing fibrogenic cells; and (d) causing subject to repetitively apply normal stress to heterograft to align fibrogenic cells and natural **collagen** **tissue** produced.

ADVANTAGE - Growth of natural connective **tissue** is oriented and enhanced, and damaged **tissue** replaced.

Derwent Class: A96; D22; P32; P34
International Patent Class (Additional): A61F-002/08; **A61L-027/00**

40/34/13 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007706034
WPI Acc No: 1988-339966/198848
Implant of placental and embryonic material - for use in treatment of geriatrics to stimulate metabolic functions

Patent Assignee: KROM R (KROM-I)
Inventor: BOURLAND E
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
FR 2613620	A	19881014	FR 875214	A	19870413	198848	B
CH 675071	A	19900831				199038	

Priority Applications (No Type Date): FR 875214 A 19870413
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2613620	A		7		

Abstract (Basic): FR 2613620 A

A medical **implant** comprises a **mixt**. of (a) about 200mg lyophilised **human placental** extract, corresp. to 40g of fresh placental **tissue** , (b) 0.3ml of human placental **collagen** suspension, corresp. to about 1.5mg of dry extract, (c) 10mg of lyophilised bovine embryonic dental buds, the **implant** being in the form of a pastille obtd. by lyophilisation of the mixt. after sterilisation.

(a), (b), and (c) are mixed in soln. in water for injection and then sterilised by filtration by known methods. The sterile filtrate is passed to 5ml flasks and lyophilised. The resultant pastille is removed under sterile conditions. If desired, an antiseptic agent is added to the mixt. prior to sterilisation.

USE - The **implant** revitalises and stimulates certain metabolic functions that are declining, and therefore may be used in geriatrics. They are useful in rheumatoid polyarthritis.

0/0

Derwent Class: B04
International Patent Class (Additional): A61K-009/20; **A61K-035/50**

40/34/15 (Item 15 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
007358781
WPI Acc No: 1987-355787/198751
Bone matrix transplantate **prodn. - by mixing an allogenic** tissue **adhesive from COHN fraction I and human plasma cryoppte. with human** collagen **in water for injection**
Patent Assignee: HUMBOLDT-UNIV BERLIN (UYBE)
Inventor: BUNTROCK P; DENNER K; MATTHES G; VERSEN R
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DD 248284	A	19870805	DD 289280	A	19860417	198751	B
DD 248284	B	19910214				199128	

Priority Applications (No Type Date): DD 289280 A 19860417
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DD 248284	A		3		

Abstract (Basic): DD 248284 A

In a new process for the prodn. of a bone matrix **transplantate** the known allogenic **tissue** adhesive consisting of **human plasma fraction** COHN I and human plasma fraction cryoprecipitate is mixed with human bone **collagen** in water for injection to give a highly viscious consistency.

The allogenic **tissue** adhesive is pref. one produced by lyophilisation of a mixture of human plasma fraction COHN I and human plasma fraction cryoprecipitate, the lyophilisate being mixed with freeze-dried human bone **collagen** substance in water for injection.

USE/ADVANTAGE - Bone matrix **transplantate** for use in human and veterinary medicine for the repair of traumatic, operation and cystic bone defects and defect fractures in spongy and cortical skeletal sections.

Derwent Class: B04; C03; D22
International Patent Class (Additional): **A61K-035/16**

40/34/20 (Item 20 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004565550
WPI Acc No: 1986-068894/198610
Bone replacing implant **compsns. - comprising non-resorbable ceramic material, and** biodegradable **polymeric material**
Patent Assignee: BRINKS G J (BRIN-I)
Inventor: BRINKS J C
Number of Countries: 013 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8601113	A	19860227	WO 85NL1113	A	19850815	198610	B
NL 8402534	A	19860317				198617	
EP 191086	A	19860820	EP 85904297	A	19850815	198634	

Priority Applications (No Type Date): NL 842534 A 19840817
Cited Patents: DE 2518153; EP 115549; FR 2350826; FR 2364644; FR 2374040; GB 2032777
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8601113	A	E	17		

Designated States (National): DK JP NO US
Designated States (Regional): AT BE CH DE FR GB IT NL SE

EP 191086	A	E			

Designated States (Regional): DE GB NL
Abstract (Basic): WO 8601113 A

Compsn. suitable for use as an **implant** material in humans and animals to replace bone **tissue** comprises a non-resorbable biocompatible, particulate ceramic material (I) as a bone-replacing component, and a **biodegradable** polymeric material (II) as binder. The compsn. has a highly viscous kneadable consistency, and contains (by wt.) 4-30% (II), 15-30% H2O, and (I) (to 100%).

USE/ADVANTAGE - The compsn. has good processability, is fully integrable into living tissues, and is suitable for surgical processes. After **implantation** , (II) is **biodegraded** , allowing new blood vessels and connective **tissue** to grow into the ceramic (I). In addn., the prod. is stable to storage. (17pp Dwg.No.0/0)

Derwent Class: A11; A81; A96; D22; L02; P34
International Patent Class (Additional): **A61L-027/00**

40/34/21 (Item 21 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
004540191

WPI Acc No: 1986-043535/198607
Resorbable implants based on collagen - contg. amino-glycoside antibiotic and polyanionic polymer
Patent Assignee: BRAUN MELSUNGEN AG B (BINT); INTERMEDICAT GMBH (INTG); MERCK PATENT GMBH (MERE)
Inventor: DINGELDEIN E; FLECKENSTE P; WAHLIG H
Number of Countries: 019 Number of Patents: 011
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 170979	A	19860212	EP 85109263	A	19850724	198607	B
DE 3429038	A	19860220	DE 3429038	A	19840807	198609	
AU 8545792	A	19860213				198614	
JP 61047413	A	19860307				198616	
ZA 8505970	A	19860206	ZA 855970	A	19850807	198619	
FI 8503023	A	19860208				198627	
DK 8503557	A	19860208				198629	
DD 235827	A	19860521				198638	
PT 80923	A	19860814				198639	
ES 8608889	A	19861216	ES 545963	A	19850807	198707	
CN 8505953	A	19870225				198820	

Priority Applications (No Type Date): DE 3429038 A 19840807
Cited Patents: No-SR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 170979	A	G	19		

Designated States (Regional): AT BE CH DE FR GB IT LI NL SE
Abstract (Basic): EP 170979 A

Resorbable **implants** comprise a reconstituted **collagen tissue** or sponge loaded with an aminoglycoside **antibiotic** (I) and a bioresorbable polyanionic polymer.

The **collagen** is in the form of fibres with a length of up to 10mm and is opt. crosslinked with HCHO, glutaraldehyde, glyoxal or hexamethylene diisocyanate. (I) is gentamycin sulphate (Ia) and (II) is a salt of an acidic polysaccharide, esp. Na alginate or pectate. (I) is present in an amt. of 1-10 wt.% and (II) is present in excess over (I).

USE/ADVANTAGE - The **implants** are useful for local control of infection in soft **tissue** wounds. They provide sustained release of (I) over long periods, have good biocompatibility and are completely resorbed. (19pp Dwg.No.0/0)

Derwent Class: A96; B07; P34
International Patent Class (Additional): A61K-009/22; A61K-013/70; A61K-031/71; A61K-047/00; A61L-015/03; **A61L-027/00**

40/34/25 (Item 25 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003732760
WPI Acc No: 1983-728958/198331
Bone graft material for osseous defects - contg. complex of reconstituted collagen and demineralised bone particles or solubilised morphogenetic protein
Patent Assignee: JEFFERIES S R (JEFF-I)
Inventor: JEFFERIES S R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 4394370 A 19830719 198331 B
Priority Applications (No Type Date): US 81304367 A 19810921; US 82430597 A 19820930
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 4394370 A 4
Abstract (Basic): US 4394370 A

Bone **graft** material, which induces osseous **tissue** formation comprises a **collagen** conjugate contg. (A) 65-95 (pref. 80-90)wt.% reconstituted **collagen** ; (B) 35-5 (pref. 20-10)wt.% demineralised bone particles (pref. of particle size not more than 70 millimicrons) and/or solubilised bone morphogenic particles uniformly dispersed in (A); and opt. (C) a crosslinking amt. (pref. 1-5wt.%) of glutaraldehyde to increase the structural integrity. The material is pref. in the form of a lyophilised sponge for in vivo **implantation** . (A) is opt. complexed with alkaline phosphatase.

The material can be used to treat osseous defects, e.g. as **grafting implants** for plastic and reconstructive surgery, in periodontal bone **grafting** and in endodontic procedure. The material induces osteogenesis within its porous structure, is non-inflammatory and biocompatible and is eventually resorbed and replaced by calcified, hard **tissue** .

Derwent Class: A96; D22
International Patent Class (Additional): A61K-009/00; **A61K-035/32**

40/34/26 (Item 26 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003722218
WPI Acc No: 1983-718411/198330
Injectable implant **material for soft tissues - comprises particulate and fibrous** collagen **for improved volume stability**
Patent Assignee: COLLAGEN CORP (CLGE)
Inventor: WADE S B; WALLACE D G
Number of Countries: 014 Number of Patents: 007
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
EP 83868 A 19830720 EP 82306910 A 19821223 198330 B
JP 58121958 A 19830720 JP 82212109 A 19821204 198335
US 4424208 A 19840103 US 82338661 A 19820111 198404
JP 85054288 B 19851129 198601
CA 1199580 A 19860121 198608
EP 83868 B 19860430 198618
DE 3270910 G 19860605 198624
Priority Applications (No Type Date): US 82338661 A 19820111
Cited Patents: US 3949073; US 4140537; US 4233360
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
EP 83868 A E 14
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE
EP 83868 B E
Designated States (Regional): CH DE FR GB IT LI
Abstract (Basic): EP 83868 A

Injectable **implant** material for soft **tissue** augmentation

comprises a dispersion of **collagen** in an aq. carrier. The **collagen** is a mixt. of particulate crosslinked atelopeptide **collagen** and reconstituted fibrous atelopeptide **collagen** .

The material has improved volume stability when injected intradermally to augment soft **tissue** , and to repair or correct congenital abnormalities, acquired defects or cosmetic defects. Such abnormalities and defects are treated in the usual way, but the shrinkage experienced around the treatment site with known **collagen implants** is reduced. The dispersion contains 15-80 mg/ml of the mixt.

Derwent Class: D22; P32; P34
International Patent Class (Additional): A61F-002/00; A61K-037/12; **A61L-027/00** ; A61M-001/03; C07C-103/52

40/34/27 (Item 27 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003676738
WPI Acc No: 1983-36709K/198315
Stability of tissue graft **improvement - by cross-linking treating with Calcification inhibitor, and then cross-linking again**
Patent Assignee: NIMNI M E (NIMN-I)
Inventor: CHEUNG D T
Number of Countries: 014 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4378224	A	19830329				198315 B
EP 121008	A	19841010	EP 83301774	A	19830329	198441
JP 59177042	A	19841006	JP 8353439	A	19830329	198446
CA 1209051	A	19860805				198636

Priority Applications (No Type Date): US 80188964 A 19800919; EP 83301774 A 19830329; JP 8353439 A 19830329
Cited Patents: A3...8513; FR 2378504; GB 2098506; No-SR.Pub; US 3673612; US 3865615; US 4264493; US 4280954; US 4350629; US 4378224
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4378224	A		7		
EP 121008	A	E			

Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE
Abstract (Basic): US 4378224 A

Stability of bioprostheses for hetero- or allo- **graft implantation** , is improved by covalently crosslinking the protein of the **tissue** sample to be **implanted** so that its shape is maintained. The **tissue** is then soaked in an aq. soln. of a calcification inhibitor, which is then covalently bound to the **tissue** , forming a three dimensional matrix. This makes the **tissue** water-insoluble, less antigenic and less subject to calcification. The **tissue** may also be treated with an anticoagulant such as heparin.

Used for treating **tissue** such as heart valves, blood vessels, pericardia, dura mater, ligaments and tendons, or other **collagen** -rich **tissue** for replacement therapy.

Derwent Class: B04; D22; P32; P34; P56
International Patent Class (Additional): A01N-001/02; A61F-001/00; A61K-037/12; A61L-017/00; **A61L-027/00** ; B23Q-023/00; C14C-003/16; C14C-015/00

40/7/29 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

03407667
BIO IMPLANTATION APPLIANCE AND PREPARATION THEREOF
PUB. NO.: 03-070567 [JP 3070567 A]
PUBLISHED: March 26, 1991 (19910326)
INVENTOR(s): IKADA YOSHITO
OKADA TOSHIYUKI
KAWAI TATSUYA
YOSHIMOTO MICHIAKI
APPLICANT(s): NIPPON MEDICAL SUPPLY CORP [418886] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-207398 [JP 89207398]
FILED: August 10, 1989 (19890810)

ABSTRACT

PURPOSE: To reduce a foreign matter feeling at the time of the **implantation** in a living body, to accelerate the invasion of bio **tissue** into a perforated part and to strongly fix said **tissue** by using a perforated body composed of a polyvinyl alcohol type polymer.
CONSTITUTION: Since a bio **implantation** appliance is constituted of a perforated body formed from a polyvinyl alcohol type polymer, said appliance has proper flexibility in a wet state. When the perforated body having **collagen** fixed to the surface thereof is **implanted** in a living body, the **tissue** of the living body rapidly penetrates in the part of the perforated body to be integrated with the living body. Therefore, the bonding with the living body is strong and bacteria becomes hard to invade and infection is hard to generate. The perforated body to be used composed of a polyvinyl alcohol type polymer is one having an open cell structure formed from a polymer whose main repeated unit is composed of vinyl alcohol. Said polymer includes not only perfectly saponified polyvinyl acetate but also partially saponified one and a small amount of other copolymer component may be contained.

40/7/30 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

01878572
DRUG COMPOUNDED **COLLAGEN** COATED SYNTHETIC BLOOD VESSEL **IMPLANT TISSUE**
PUB. NO.: 61-092672 [JP 61092672 A]
PUBLISHED: May 10, 1986 (19860510)
INVENTOR(s): HAAMON HOFUMAN JIYUNIA
KEMARU SHIYANKERERII
MIROSU CHIBAPIRU
APPLICANT(s): MEDOTSUKUSU MEDICAL INC [191589] (A Non-Japanese Company or Corporation), US (United States of America)
APPL. NO.: 60-014591 [JP 8514591]
FILED: January 30, 1985 (19850130)
PRIORITY: 6-575,091 [US 575091-1984], US (United States of America), January 30, 1984 (19840130)

40/7/31 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO

01724764

SYNTHETIC VESSEL **TRANSPLANTATION** **TISSUE** COATED WITH **COLLAGEN**
PUB. NO.: 60-203264 [JP 60203264 A]
PUBLISHED: October 14, 1985 (19851014)
INVENTOR(s): HAAMON HOFUMAN JIYUNIA
KEMARU SHIYANKERERII
APPLICANT(s): MEDOTSUKUSU MEDICAL INC [191589] (A Non-Japanese Company or Corporation), US (United States of America)
APPL. NO.: 60-014592 [JP 8514592]
FILED: January 30, 1985 (19850130)
PRIORITY: 6-575,082 [US 575082-1984], US (United States of America), January 30, 1984 (19840130)

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File 348:EUROPEAN PATENTS 1978-2004/Aug W02
File 349:PCT FULLTEXT 1979-2002/UB=20040812,UT=20040805
Set     Items   Description
S1      19264   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
             STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
             OR FOETUS OR FAETUS)
S2     156368   TISSUE
S3     101429   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4        941   TISSUE()GRAFT? ?
S5     132562   IMPLANT? OR GRAFT?
S6    1043909   MIX? OR COMBIN?
S7       5321   (FERTILIS?? OR FERTILIZ?? OR EMBRYON? OR PLACENTAL OR JUVE-
             NILE OR YOUNG)()(CELL? ? OR TISSUE? ? OR ORGAN? ?)
S8      35974   TRANSPLANT?
S9      22528   IC=C12N-005
S10     56288   IC=(A61K-045 OR A61K-038 OR A61K-048 OR A61K-035 OR A61L-0-
             27 OR A61P-017)
S11        15   (S1 OR S7)(5N)S6(5N)S3:S4
S12         7   (S5 OR S8)(S)S11
S13         2   S9:S10 AND S12 [too recent]
S14         5   S12 NOT S13
S15         8   S11 NOT S12:S13 [too recent]
S16        53   (S1 OR S7)(5N)S3:S4(S)(S5 OR S8)
S17        48   S16 NOT S11

 14/3,AB,K/1     (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00330838
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METHOD AND APPARATUS FOR PREPARING COMPOSITE SKIN REPLACEMENT.
VORRICHTUNG UND VERFAHREN ZUR HERSTELLUNG EINES KOMPOSITHAUTERSATZES.
PROCEDE ET APPAREIL PERMETTANT DE PREPARER UN MATERIAU DE REMPLACEMENT COMPOSITE DE PEAU.

```
PATENT ASSIGNEE:
  THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, (221072), 300 Lakeside
    Drive, 22nd Floor, Office of the President, Oakland, California
    94612-3550, (US), (applicant designated states:
    AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
  BOYCE, Steven, T., 570 Twin Hills Ridge Drive, Cincinnati, OH 45228, (US)
LEGAL REPRESENTATIVE:
  Kolb, Helga, Dr. Dipl.-Chem. et al (49371), Hoffmann, Eitle & Partner
    Patentanwalte Arabellastrasse 4, W-8000 Munchen 81, (DE)
PATENT (CC, No, Kind, Date):  EP 363400  A1  900418 (Basic)
                              EP 363400  A1  900502
                              EP 363400  B1  930303
                              WO 8808305  881103
APPLICATION (CC, No, Date):   EP 88904813 880428;  WO 88US1396  880428
PRIORITY (CC, No, Date): US 43321 870428
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61K-037/00; A61F-002/10; C12M-003/00;
NOTE:  No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:
```

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	1012
CLAIMS B	(German)	EPBBF1	1004
CLAIMS B	(French)	EPBBF1	1205
SPEC B	(English)	EPBBF1	9656
Total word count - document A			0
Total word count - document B			12877
Total word count - documents A + B			12877

...SPECIFICATION organized, stratified, and differentiated, but contained no rete pegs or epidermal adnexal structures.

Success of **grafts** containing cultured HK also depends on the ability of the cultured cells to continue to proliferate indefinitely in analogy to epidermal **stem cells** . Earlier studies **combined** cultured HK sheets with **collagen** -GAG dermal membranes in vitro and resulted in no attachment of the HK sheets to...

...only retain growth potential as demonstrated by the presence of mitotic cells in the composite **grafts** , but ...attachment to the collagen-GAG membrane. The retention of growth potential by preparation of composite **grafts** with HK cells in exponential growth phase may be expected to increase the proportion of cells in the **graft** that are capable of long-term proliferation after application to the wound, in analogy to...

17/3,AB,K/5 (Item 5 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
00297704

Tendon/ligament substitutes composed of long, parallel, non-antigenic tendon/ligament fibers.

Band-/Sehnenersatz, bestehend aus langen, parallelen nichtkorperfeindlichen Fasern von Bandern und Sehnen.

Tendon/ligament de remplacement compose de fibres de tendons/ligaments longues, paralleles et non antisomatogenes.

PATENT ASSIGNEE:
BIO-PRODUCTS, INC., (1010870), P.O. Box 50003, Tucson Arizona 85703, (US) , (applicant designated states: BE;CH;DE;ES;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:
Chvapil, Milos, 5655 North Mina Vista, Tucson Arizona 85718, (US)

LEGAL REPRESENTATIVE:
Wachtershauser, Gunter, Dr. (12711), Tal 29, D-8000 Munchen 2, (DE)

PATENT (CC, No, Kind, Date): EP 306018 A1 890308 (Basic)
APPLICATION (CC, No, Date): EP 88114262 880901;
PRIORITY (CC, No, Date): US 93018 870904
DESIGNATED STATES: BE; CH; DE; ES; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61F-002/08; A61L-027/00;

ABSTRACT EP 306018 A1

A **heterograft** for supporting ingrowth of ligament or tendon connective tissue to replace damaged connective tissue in a subject is composed of a plurality of long, thin **fibers extracted from animal connective tissue** having generally the same mechanical properties as the tissue to be replaced. The individual fibers are extracted by a sequence of chemical treatments and mechanical treatments, purified to eliminate foreign material from the fibers, and cross-linked to a degree that causes their shrinkage temperature to have a preselected value that corresponds to the desired tensile strength, allows only a preselected amount of water retention by the fibers in order to enhance attraction of fibrogenic

cells to the fiber surfaces, and avoids producing foreign body reaction to the heterograft. The fibers are maintained generally parallel in a bundle or weave. The tensile strength of the heterograft permits the subject to continue normal activities involving the joint immediately after **implant** surgery without immobilizing the joint. This ensures that repetitive, normal stress is applied to the heterograft and aligns ingrowing fibrogenic cells and natural collagen connective tissue replacement produced by the fibrogenic cells in the direction of the repetitive stresses, orienting and enhancing the growth of natural replacement connective tissue.

ABSTRACT WORD COUNT: 204
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	433
SPEC A	(English)	EPABF1	7802
Total word count - document A			8235
Total word count - document B			0
Total word count - documents A + B			8235

...SPECIFICATION of fibroblasts, chondroblasts, etc. For example, see "Patterns of Three-dimensional Growth in Vitro in **Collagen** -coated Cellulose Sponge: Carcinomas and **Embryonic Tissues** ", by J. Leighton, R. Mark and G. Justh, Cancer Research, 28:286, 1968 and "Enhancement of Healing in Osteochondral Defects by Collagen Sponge **Implants** " by D. P. Speer, M. Chvapil, R. G. Volz and M. D. Holmes, Clinical Orthopedics...

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File 155:MEDLINE(R) 1951-2004/Aug W3
File   5:Biosis Previews(R) 1969-2004/Aug W2
File  73:EMBASE 1974-2004/Aug W2
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W2
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  71:ELSEVIER BIOBASE 1994-2004/Aug W2
File 315:ChemEng & Biotec Abs 1970-2004/Jul
File 358:Current BioTech Abs 1983-2004/Jul
Set     Items   Description
S1        196   AU='BONUTTI P' OR AU='BONUTTI P M' OR AU='BONUTTI P.' OR A-
             U='BONUTTI P.M.' OR AU='BONUTTI PETER M' OR AU='BONUTTI PETER
             MARK' OR AU='BONUTTI PM'
S2        177   S1/1991:2004
S3         19   S1 NOT S2
S4          7   RD (unique items)

4/6/1     (Item 1 from file: 155)
08660450   PMID: 2402684
  MRI diagnosis of tuberculous vertebral osteomyelitis.
Jun 1990

 4/6/2     (Item 2 from file: 155)
08642755   PMID: 2394041
  Cervical spine and shoulder pain.
Sep 1990

 4/6/3     (Item 3 from file: 155)
08445323   PMID: 2696602
  Rotator cuff disorders.
Dec 1989

 4/6/4     (Item 4 from file: 155)
07719647   PMID: 3349684
  Isobutyl  cyanoacrylate  as  a soft tissue adhesive. An in vitro study in
the rabbit Achilles tendon.
Apr 1988

 4/6/5     (Item 5 from file: 155)
07288992   PMID: 2877993
  Compartment syndrome of the foot. A case report.
Dec 1986

 4/6/7     (Item 2 from file: 5)
0005371915   BIOSIS NO.: 198732100806
ISOBUTYL CYANOACRYLATE AS A SOFT TISSUE ADHESIVE REPAIR IN RABBIT ACHILLES
  TENDON
1986

 4/7/6     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2004 BIOSIS. All rts. reserv.
0005782687   BIOSIS NO.: 198834011578
BUTYL CYANOACRYLATE AS AN OSSEOUS HEMOSTATIC AGENT
AUTHOR:  BONUTTI P  (Reprint); WEIKER G G; BAUER T
AUTHOR ADDRESS: 9500 EUCLID AVE, CLEVELAND, OHIO 44106, USA**USA
```

JOURNAL: Orthopaedic Transactions 11 (2): p222 1987
CONFERENCE/MEETING: FIFTH ANNUAL MEETING OF THE MID-AMERICA ORTHOPAEDIC ASSOCIATON, SAN DIEGO, CALIFORNIA, USA, MARCH 25-29, 1987. ORTHOP TRANS.
ISSN: 0162-9379
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

```
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200452
Set     Items   Description
S1        199   AU='BONUTTI P M'
S2     527493   AY=1991
S3     537132   AY=1992
S4     549882   AY=1993
S5     667277   AY=1994
S6     745673   AY=1995
S7     791064   AY=1996
S8     850590   AY=1997
S9     864427   AY=1998
S10    901957   AY=1999
S11    987117   AY=2000
S12   1029351   AY=2001
S13    957971   AY=2002
S14    329432   AY=2003
S15     13459   AY=2004
S16         6   S1 NOT S2:S15

 16/26,TI/1
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
009972961
WPI Acc No: 1994-240674/199429
  Method of performing carpal tunnel surgery - includes steps of inserting
  retractor to approximate location where surgery is to be performed and
  expanding this retractor by introducing fluid under pressure to
  expansible portion to move tissue outwardly

 16/26,TI/2
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
009711218
WPI Acc No: 1993-404771/199350
  Percutaneous tissue removal device - comprises flexible drill shaft,
  cutting tip for cutting bone, cartilage and includes suction member
  connected to drill shaft

 16/26,TI/3
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
009494651
WPI Acc No: 1993-188187/199323
  Adjustable furniture armrest assembly - has contoured, padded body which
  is selectively positionable and fixable in any such desired position

 16/26,TI/4
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
009432416
WPI Acc No: 1993-125932/199315
  Retractor for use in arthroscopic surgery - comprises tubular body with
  central instrument passage and sleeve member circumscribing body member
  and includes mechanical expanding portion
```

16/26,TI/6
DIALOG(R)File 350:Derwent WPIX

008732969
WPI Acc No: 1991-236985/199132
Air assisted medical devices for moving limbs - comprises one piece air bag with bellows to allow controlled variable degrees of abduction

16/34/5
DIALOG(R)File 350:Derwent WPIX

009279595 **Image available**
WPI Acc No: 1992-407006/199249
Prosthetic implants have their size modified - by bonding to softened heat bondable composite pref. of polyethylene@ embedded with fibres
Patent Assignee: BONUTTI P M (BONU-I)
Inventor: **BONUTTI P M**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5163960	A	19921117	US 90545919	A	19900628	199249	B

Priority Applications (No Type Date): US 90545919 A 19900628
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5163960	A		11	A61F-002/00	

Abstract (Basic): US 5163960 A
The shape of a prosthetic implant is modified by heating a surface of a biocompatable heat bondable material of the desired shape until it becomes tacky. The surface is then adhered to the implant. After cooling the implant is implanted. Pref. heating is carried using a laser. Pref. the material is a composite of non-biodegradable resin and embedded fibres. Pref. the resin is a polymer esp. polyethylene.
USE - For suture fastenings or K-wires providing a custom fit.
Dwg.3/11
Derwent Class: A96; D22; P32
International Patent Class (Main): A61F-002/00

```
File 347:JAPIO Nov 1976-2004/Apr(Updated 040802)
Set     Items   Description
S1        278   (FETAL OR FOETAL OR FAETAL)()(TISSUE OR CELL OR CELLS) OR -
              STEM()(CELL OR CELLS) OR (CELL OR CELLS OR TISSUE)(2N)(FETUS -
              OR FOETUS OR FAETUS)
S2      10448   TISSUE
S3      13864   COLLAGEN OR ANTIBIOTIC? ? OR HYDROXYAPATITE OR TRICALCIUM(-
             )PHOSPHATE OR PROMOT?(2N)BONE(1N)GROWTH OR BIODEGRAD?
S4          1   TISSUE()GRAFT? ?
S5      79615   IMPLANT? OR GRAFT?
S6     721410   MIX? OR COMBIN?
S7      10462   TRANSPLANT?
S8         32   (FERTILI?ED OR EMBRYON? OR PLACENTAL OR JUVENILE OR YOUNG)-
              ()(TISSUE? ? OR CELL? ? OR ORGAN? ?)
S9    1033651   AD=(1992 OR 1993 OR 1994)
S10    698447   AD=1995 OR AD=1996
S11   1088421   AD=(1997 OR 1998 OR 1999)
S12    398890   AD=2000
S13    394236   AD=2001
S14    295139   AD=2002
S15     24681   AD=(2003 OR 2004)
S16        13   (S1 OR S8) AND S3:S4
S17         3   (S5 OR S7) AND S16 [2 too recent; 1 duplicate]
S18         1   S16 NOT S9:S15
S19         0   S18 NOT S17
S20       369   S2 AND S3
S21       177   S20 NOT S9:S15
S22        20   S21 AND (S5 OR S7)
S23         0   HKOW FILES

 22/6/3
04050293
PRODUCTION OF LICHENOUS COMPONENT BY  TISSUE  CULTURE OF LICHENOUS PLANT

 22/6/6
03696763
SUTURE MATERIAL FOR MEDICAL USE

 22/6/7
03407667
BIO  IMPLANTATION  APPLIANCE AND PREPARATION THEREOF

 22/6/9
03097371
EPITHELIAL TUMOR CELL STRAIN

 22/6/12
02920991
PRODUCTION OF ANTIMICROBIAL SUBSTANCE

 22/6/13
02422920
METHOD  FOR  KEEPING ETERNAL YOUTH BY SUPPRESSION OF REJECTION REACTION AND
 TRANSPLANTATION  OF JUVENILE CELL
```

22/6/14
02194796
PRODUCTION OF SAPONIN

22/6/15
02172729
HISTOTROPIC **COLLAGEN** AND PRODUCTION THEREOF

22/6/17
01878572
DRUG COMPOUNDED **COLLAGEN** COATED SYNTHETIC BLOOD VESSEL **IMPLANT** **TISSUE**

22/7/8
DIALOG(R)File 347:JAPIO

03141184
PRODUCTION OF POROUS BODY OF CALCIUM PHOSPHATE COMPOUND
PUB. NO.: 02-116684 [JP 2116684 A]
PUBLISHED: May 01, 1990 (19900501)
INVENTOR(s): SHIMAMUNE TAKAYUKI
HOSONUMA MASASHI
APPLICANT(s): PERMELEC ELECTRODE LTD [422084] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 63-265872 [JP 88265872]
FILED: October 21, 1988 (19881021)

ABSTRACT

PURPOSE: To obtain the porous body of calcium phosphate compound which has both proper physical strength as the filler (prosthesis) of bones and teeth and porosity capable of growing the bony **tissue** therein by kneading calcium phosphate compound and nonvolatile organic liquid and thereafter molding this kneaded material and sintering the molded material.
CONSTITUTION: Calcium phosphate compound and nonvolatile organic liquid are kneaded and thereafter this kneaded material is molded and the molded body is sintered. As calcium phosphate compound, **hydroxyapatite** and **tricalcium** **phosphate** are utilized and besides calcium hydrogenphosphate, calcium dihydrogenphosphate and compounds containing several impure components may be utilized. As the nonvolatile organic liquid, the aqueous liquid material of methyl cellulose, polyethylene glycol or PVA are preferably utilized. A porous body having required porosity (about 20-60%) especially available as an **implanting** material of bones and a dental root is obtained by properly selecting the amount of the organic liquid. Sintering is preferably performed at 600-1300 deg.C in the oxidative atmosphere such as air.

22/7/10
DIALOG(R)File 347:JAPIO

03096249
ARTIFICIAL SKIN
PUB. NO.: 02-071749 [JP 2071749 A]
PUBLISHED: March 12, 1990 (19900312)
INVENTOR(s): KOIDE MIKIO
OSAKI KENICHI
OYAMADA KO
KONISHI ATSUSHI

YOSHIZATO KATSUTOSHI
APPLICANT(s): TERUMO CORP [365358] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 63-222538 [JP 88222538]
FILED: September 07, 1988 (19880907)

ABSTRACT

PURPOSE: To form a living skin **tissue** in vitro and to remarkably shorten a curing process by forming an artificial skin **tissue** with a sponge layer made of a matrix consisting of **collagen** and a specific amount of denatured **collagen** , and a sheet-like **collagen** film layer for supporting the former **collagen** .
CONSTITUTION: An artificial skin comprises a sponge layer made of a matrix consisting of **collagen** and at least about 5wt.% of denatured **collagen** , and a sheet-like film layer for supporting the former **collagen** . The denatured **collagen** is the one obtained in such way that **collagen** is heat-treated, chemically treated or physically treated and accordingly, triple chain helix is turned into random coil. The denatured degree of **collagen** is given by the containing amount of the helix structure. A part of a patient to be **implanted** is peeled off with the use of dermatome, and is separated into the outer skin and the corium, and base cells in the outer skin is sustained under a physiological condition by making fibrous sprout cells into contact with **collagen** sponge so as to obtain an artificial skin.

22/7/11
DIALOG(R)File 347:JAPIO

02952664
LIVING BODY MATERIAL
PUB. NO.: 01-250264 [JP 1250264 A]
PUBLISHED: October 05, 1989 (19891005)
INVENTOR(s): OISHI HIDEYUKI
APPLICANT(s): LION CORP [000676] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 63-328758 [JP 88328758]
FILED: December 26, 1988 (19881226)

ABSTRACT

PURPOSE: To obtain a simply usable curable living body material having the high compatibility with the **tissue** of a living body, generating no inflammation, rapidly bonding the **tissue** of a living body to the surface of an **implant** and rapidly generating curing, by using no only protein having physiological activity but also a low MW acid to cure **tricalcium phosphate** .
CONSTITUTION: Protain having physiological activity is one having properties such as cell adhesiveness, propagation properties, bone inducing properties, blood coagulating properties or the like and, concretely fibronectin glycoprotein, lipoprotein, a substance occurring from a tooth germ or the like are appropriately used. As a low MW acid used for curing **tricalcium phosphate** , citric acid or malic acid is preferably used and the amount of **tricalcium phosphate** in a living body material is set to 40-82.5wt.%, preferably, 70-80wt.% and protein having physiological activity may be contained in an amount of 0.7-16%, preferably, 1-8%.

22/7/16
DIALOG(R)File 347:JAPIO

01986803 **Image available**
MATERIAL TO BE EMBEDDED IN LIVING BODY
PUB. NO.: 61-200903 [JP 61200903 A]
PUBLISHED: September 05, 1986 (19860905)
INVENTOR(s): SETO KANICHI
SEGAWA AKIHISA
MAKI TORU
APPLICANT(s): SEGAWA AKIHISA [000000] (An Individual), JP (Japan)
APPL. NO.: 60-041313 [JP 8541313]
FILED: March 04, 1985 (19850304)

ABSTRACT

PURPOSE: To provide a material to be embedded in a living body in a manner exposed partly from the body and capable of integrating rapidly with living **tissue**, by using an epithelial attachment formation promoting material composed of epithelium, epidermis growth factor, cell proliferation factor, basilemma component, fibrin membrane, etc., and placing the material to the part contacting with the mucous epithelium or epidermis.
CONSTITUTION: The objective material to be embedded in a living body in a manner exposed partly from the body, e.g. dental **implanting** material, transcutaneous terminal, or artificial anus, etc., is produced by placing an epithelial attachment formation promoting material (preferably composed of epithelium, epidermis growth factor including cell proliferation factor, basilemma component, fibrin membrane, or **collagen** -containing fibrin membrane; exemplified in the table) to the part contacting with the mucous epithelium or epidermis. The embedding material bonds with the living body and is effective for the prevention of infection, the early curing and the prevention of falling-off of the material.

22/7/18
DIALOG(R)File 347:JAPIO

01724764
SYNTHETIC VESSEL TRANSPLANTATION TISSUE COATED WITH COLLAGEN
PUB. NO.: 60-203264 [JP 60203264 A]
PUBLISHED: October 14, 1985 (19851014)
INVENTOR(s): HAAMON HOFUMAN JIYUNIA
KEMARU SHIYANKERERII
APPLICANT(s): MEDOTSUKUSU MEDICAL INC [191589] (A Non-Japanese Company or Corporation), US (United States of America)
APPL. NO.: 60-014592 [JP 8514592]
FILED: January 30, 1985 (19850130)
PRIORITY: 6-575,082 [US 575082-1984], US (United States of America), January 30, 1984 (19840130)

22/7/19
DIALOG(R)File 347:JAPIO

01440351
ADHESION OF COLLAGEN TO IMPLANT MATERIAL AND TISSUE ACTIVATING POWDER AGENT USED THEREIN
PUB. NO.: 59-151951 [JP 59151951 A]
PUBLISHED: August 30, 1984 (19840830)
INVENTOR(s): OOTORI MORITSUGU
UMAGOME MASAKATSU

APPLICANT(s): OOTORI MORITSUGU [000000] (An Individual), JP (Japan)
UMAGOME MASAKATSU [000000] (An Individual), JP (Japan)
APPL. NO.: 58-025995 [JP 8325995]
FILED: February 17, 1983 (19830217)

22/7/20
DIALOG(R)File 347:JAPIO

01184558
COLLAGEN TRANSPLANTING SUBSTANCE AND METHOD FOR REINFORCING SOFT **TISSUE**
PUB. NO.: 58-121958 [JP 58121958 A]
PUBLISHED: July 20, 1983 (19830720)
INVENTOR(s): DONARUDO JII UOORESU
SUUZAN BII UEIDO
APPLICANT(s): KORAAGEN CORP [000000] (A Non-Japanese Company or Corporation), US (United States of America)
APPL. NO.: 57-212109 [JP 82212109]
FILED: December 04, 1982 (19821204)
PRIORITY: 6-338,661 [US 338661-1982], US (United States of America), January 11, 1982 (19820111)

Title: *Alzheimer's, aging and acetylcholine* , By: Weiss, Rick, Science News, 00368423, 11/26/88, Vol. 134, Issue 22
Database: *Business Source Corporate*

Section: Neuroscience

Alzheimer's, aging and acetylcholine

Consisting of perhaps no more than 100,000 nerve cells, the basal forebrain takes up very little of the space between our ears. But with evidence that it may play a key role in Alzheimer's disease, this deeply buried clump of cells has captured many neuroscientists' attention in the past two years.

Through long neural branches, the basal forebrain supplies the more highbrow parts of the brain, such as the cortex and hippocampus, with healthy doses of the neurotransmitter acetylcholine, which scientists believe modulates the processes of learning and memory. In Alzheimer's, the basal forebrain usually degenerates, leading to depressed acetylcholine production. Many experimental Alzheimer's therapies have sought to boost acetylcholine, but with little success.

Now, researchers express excitement about the possibility of using a natural hormone, nerve growth factor (NGF), to "rescue" a withering basal forebrain and block the progression of at least some Alzheimer's symptoms. Found in low levels in most animals, NGF dramatically stimulates new outgrowths of acetylcholine-producing ("cholinergic") nerves. Until recently, scientists wanting to work with NGF had to extract it from the salivary glands of male mice -- lots of male mice. But now that several laboratories have successfully cloned the NGF gene from several different species, scientists are moving quickly into what some envision as the next big wave in neuroscience research: transplantation of genetically engineered cells that make cell growth factors.

Lars Olson of the Karolinska Institute in Stockholm, Sweden, last week described the first such attempts. Olson and his colleagues inserted into a cultured line of mouse cells the gene for a form of NGE When transplanted into the brains of rats, these gene-altered cells secreted NGF and stimulated new growth of acetylcholine-producing neurons. Moreover, when the researchers mixed the growth-factor-secreting cells with fetal nerve tissue that was about to be transplanted into adult rats' brains, they enhanced the survival and growth of the fetal tissue graft.

Beyond the possibility of rescuing basal forebrains in Alzheimer's patients, other potential applications of the technique abound. In Parkinson's disease, for example, where Olson and others have experimented with transplants of dopamine-producing fetal cells into patients' brains, gene-altered cells may behave more predictably than fetal cells. "One possibility would be to use these cells rather than fetal tissue, by getting them to make dopamine, for instance," Olson says.

Elsewhere on the Alzheimer's front, scientists report that monkeys, if allowed to live long enough, may be useful models for studying the disease. Alzheimer's research has long been hampered by the lack of a

research animal that develops both the behavioral and neurological signs of the disease. Now, Linda C. Cork of the Johns Hopkins School of Medicine in Baltimore and her colleagues report the first identification of a protein called A68 in the brains of old monkeys. In humans, the protein – whose function remains uncertain – is uniquely found in Alzheimer's patients (SN: 11/28/87, p.348).

Moreover, Cork's co-worker Donald Price reports the first discovery of neurofibrillary tangles in the brain of a very old monkey who had died after showing symptoms of Alzheimer's. The protein tangles in brain tissue are characteristic of advanced Alzheimer's, and Price speculates that A68 may be a precursor of the tangles.

Along with ongoing, task-oriented studies of a large group of aging monkeys in his lab, he says, analyses of such changes in monkey brains may help scientists understand the connection between neural damage and the behavioral changes seen in Alzheimer's.

~~~~~~~~

By Rick Weiss

Rick Weiss reports from Toronto at the 18th annual meeting of the Society for Neuroscience

Source: Science News, 11/26/88, Vol. 134 Issue 22, p350, 1p
Item: 8802810

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Biotechnology Advances
Volume 4, Issue 1 , 1986, Page 176

doi:10.1016/0734-9750(86)90191-6 Cite or Link Using DOI

Classified patent abstract healthcare products

4546500 Fabrication of living blood vessels and glandular tissues

Eugene Bell assigned to Massachusetts Institute of Technology

Available online 14 November 2002.

Biotechnology Advances
Volume 4, Issue 1 , 1986, Page 176

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Biotechnology Advances
Volume 4, Issue 2 , 1986, Page 339

doi:10.1016/0734-9750(86)90541-0 Cite or Link Using DOI

Classified patent abstract healthcare products

4547490 Synthetic whole blood and a method of making the same

Charles S Ecanow, Bernard Ecanow assigned to Neomed Inc

Available online 13 November 2002.

Biotechnology Advances
Volume 4, Issue 2 , 1986, Page 339

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Brain Research
Volume 198, Issue 1 , 29 September 1980, Pages 167-182

doi:10.1016/0006-8993(80)90352-2 Cite or Link Using DOI

Research report

Patterns of reaggregation and formation of linear aggregate chains in collagen-well cultures of dissociated mouse brain and spinal cord cells

Ilya V. Victorov and Teresa L. Krukoff*

Nervous Tissue Culture Unit, Laboratory of Functional Synaptology, Brain Research Institute, U.S.S.R. Academy of Medical Sciences, Moscow 107120, U.S.S.R.

Accepted 3 April 1980. ; Available online 13 March 2003.

Abstract

With the use of the newly developed collagen-well culture technique spontaneous reaggregation of cells from dissociated embryonic mouse brain and spinal cord were studied. Within 20 h in culture, aggregates are formed and settled onto collagen substrate. Two patterns of aggregate arrangement were observed: random and linear. Linear chains of aggregates appeared to be more characteristic of dissociated spinal cord cells, although the linear patterns were not uncommon in cultures of dissociated cortex. Formation of aggregate chains appeared to be dependent on the stage of neuronal and glial differentiation. After attachment to the collagen substrate, the general pattern of aggregate organization was not greatly altered except for changes which resulted from cellular migration and proliferation, the formation of connections between aggregates, or incorporation of small aggregates into larger ones. The number of non-aggregated cells in collagen-well cultures was small. Single, non-aggregated neurons seldom survived individually. Fiber connections between aggregates began to form after the first day in vitro, and by 2 or 3 days, the growing fibers formed neuritic bridges connecting aggregates. By the end of the first week growing fibers often organized compact bundles, but part connections between aggregates were presented by separate fibers in a diffused manner. Silver impregnation revealed that these connections were formed by the axons of neurons located in the aggregates. Thus, progression of the above described processes resulted in the 'de novo' formation of linear organized or random

systems of interconnected neuronal centers.

Author Keywords: embryonic mouse brain and spinal cord; dissociation; reaggregation; formation of aggregate systems; collagen-well cultures

---

* Post-graduate student from Department of Anatomy, University of Saskatchewan Medical College, Saskatoon, Sask., Canada, as participant of Canada — U.S.S.R. graduate student exchange program. Present adress: Health Science Center, Memorial University of Newfoundland, St. John's, Newfoundland, Canada.

Brain Research
Volume 198, Issue 1 , 29 September 1980, Pages 167-182

Display Abstract Show: 20 Sort Send to Text

1: Tsitologiia. 1980 Sep;22(9):1129-33. Related Articles, Linl

[Method for culturing dissociated and reaggregated brain cells i a collagen microwell]

[Article in Russian]

Viktorov IV.

A technique of preparation of collagen well on a cover-slip for cultivation of dissociated brain and spinal cord cells has been described. This technique is applicable to the study of spontaneous cell reaggregation and development o fibre interconnections between aggregates attached to the collagen substrate.

Publication Types:
- Review

PMID: 7003866 [PubMed - indexed for MEDLINE]

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